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December 3, 2009

Kenneth Thiessen, Certified Engineering Geologist
Oregon Dept. of Environmental Quality
NW Region Cleanup Program
2020 SW 4th Ave, Ste, 400, Portland, OR 97201
(503) 229-6015

RE: Initial Stormwater Sampling Report
GS Roofing Products, 6350 NW Front Avenue
Portland, Oregon

Dear Mr. Thiessen:

Per the Stormwater Assessment Workplan (SWAWP) dated January 2009, the SWAWP Addendum and response dated April 2009, and final Oregon Dept. of Environmental Quality (DEQ) comments and approval dated May 21, 2009, Forensic Environmental Services, Inc. (FES), on behalf of CertainTeed Corporation (CertainTeed), has prepared this letter report summarizing recent stormwater sampling activities conducted at the GS Roofing Products, 6350 NW Front Avenue, Portland, Oregon.

This sampling report, which was prepared and submitted within 30 days of receipt of the stormwater sampling laboratory data package, includes:

- A discussion of the sampling activities and any deviations from the sampling plan.
- Copies of field documentation (see Appendix A).
- Copies of the laboratory report and chain-of-custody form (see Appendix A).
- Data summaries in paper and electronic format (see Table 2, CD enclosed).
- A discussion of the compounds detected, any compounds detected above their respective SLV, and the magnitude of the exceedances.

Introduction

Stormwater sampling locations and the associated analytical suites were finalized in the January 2009 SWAWP and the May 2009 DEQ approval letter. Following receipt of the DEQ SWAWP approval letter dated May 21, 2009, CertainTeed made preparations for the collection of the stormwater samples.

TestAmerica, Inc. of Portland (TestAmerica) was contracted as the field consultant in June 2009. The relevant SWAWP documents were forwarded to TestAmerica, and initial field work (catch basin sediment sampling) was scheduled for early July 2009. Due to the absence of significant rainfall events, stormwater sampling was not scheduled until Third Quarter 2009. Stormwater sampling locations are depicted on Figure 1, and the analytical suite proposed for each sampling location is summarized in Table 1.

Storm Event Criteria

TestAmerica mobilized to the site on October 21, 2009, and stormwater sampling was initiated at approximately 07:30 am Pacific Standard Time (PST). Weather conditions at the time of sampling were overcast with light rain and the temperature was approximately 53°F. The last significant rainfall event in the area (i.e., more than 0.2 inches) had occurred four days earlier on October 17, 2009. Based on precipitation data obtained from the nearest City of Portland HYDRA Station (No. 193, Astor Elementary School, 5601 N. Yale St., located approximately 1.0 mile northeast of the site), the main rainfall event started approximately three hours earlier between 4:00 am and 5:00 am PST (note: 0.01 inches of rain was recorded between 1 am and 2 am PST). No rainfall was recorded during the previous 24 hours, precipitation lasted between five and six hours, and total rainfall was 0.25 inches, so the October 21, 2009 rainfall meets the storm event criteria. A temporal rainfall distribution graph, as outlined in the Oregon Department of Environmental Quality (DEQ) *Guidance for Evaluating the Stormwater Pathway at Cleanup Sites* public review draft dated May 1, 2008, is provided as Figure 2.

Sampling Methods and Documentation

Stormwater samples were collected directly from each outfall sampling location into laboratory supplied bottleware. Based on the available information provided by TestAmerica, sampling methods generally followed the methodology identified in the Washington Department of Ecology 2005 document *How to Do Stormwater Sampling: A guide for industrial facilities*; however, field sampling documentation was minimal (see the laboratory report in Appendix A). Following the sampling event, field sampling procedures were reviewed with TestAmerica to ensure that requisite field documentation will be completed during future SWAWP sampling events.

Analytical Suite

The analytical suite for each stormwater sample is listed in Table 1. Each stormwater sample was analyzed for total suspended solids (TSS) via Standard Method 2540D, total organic carbon (TOC) via Standard Method 5310C, selected target analyte list (TAL) metals via EPA Methods 200.7/200.8/7470A, total petroleum hydrocarbons-diesel range organics (TPH-DRO), TPH-heavy oil range hydrocarbons (TPH-HORH), and TPH-gasoline range organics (TPH-GRH) via Methods NWTPH-Dx & NWTPH-Gx, semi-volatile organic compounds (SVOCs) via EPA Method 8270C, and polyaromatic hydrocarbons (PAHs) and phthalates via EPA Method 8270M-SIM. Each stormwater sample was also analyzed for the following contingent parameters: polychlorinated biphenyls (PCBs) via EPA Method 8082, organochlorine pesticides via EPA Method 8081A, and chlorinated herbicides via EPA Modified Method 8151A.

The selected analytical laboratory, TestAmerica, attempted to achieve the screening level values (SLVs) listed in Table 3-1 of the Portland Harbor Joint Source Control Strategy (JSCS) dated December 2005 to the extent practicable. All analyses met the laboratory Method Reporting Limit (MRL) value listed in Table 3-1 of the JSCS December 2005 document; however, several MRLs exceeded the corresponding SLV.

Deviations from the Approved SWAWP

The following deviations from the approved SWAWP were noted: 1) stormwater samples were not collected on October 21, 2009 for analysis of volatile organic compounds (VOCs) via EPA Method 8260; and 2) specified Quality Assurance and Quality Control (QA/QC) samples were not collected on October 21, 2009 (see discussion under "Data Quality Assurance and Quality Control"). No other deviations from the approved SWAWP were noted.

The required analytical suite was reviewed with TestAmerica, and stormwater samples for VOC analysis were collected during the second round of sampling conducted on November 7, 2009. All VOC analytes were below MRLs; however, the rainfall event did not meet the necessary criteria. If VOCs are detected close to or above Portland Harbor SLVs in the remaining three stormwater sampling events, a supplemental stormwater sampling event for VOCs will be completed. If VOCs are not detected close to or above the SLVs during the three scheduled stormwater sampling events, no additional sampling for VOCs will be performed.

Sampling Results and Discussion

Stormwater sampling results are summarized in Table 2. A copy of the laboratory analytical data report is provided as Appendix A. Contingent parameters PCBs, organochlorine pesticides, and herbicides were not detected in either stormwater sample. Therefore, per the DEQ-approved SWAWP, samples will not be collected for these contingent analytes during subsequent stormwater sampling events.

No SVOC were detected in either sample via EPA Method 8270C (see Table 2), and no PAHs or phthalates were detected via EPA Method 8270M-SIM in the stormwater sample from Outfall A. Two PAHs were detected in the stormwater sample from Outfall B, fluoranthene and pyrene, at concentrations of 0.109 micrograms per liter ($\mu\text{g/L}$) and 0.118 $\mu\text{g/L}$, respectively. The detected PAH concentrations are below the corresponding SLV (0.2 $\mu\text{g/L}$). The presence of relatively low concentrations of PAHs is often associated with run-off from asphalt surfaces, which are present in the vicinity of Outfall B (i.e., Drainage Basin 001).

TPH-GRH and TPH-HORH were not detected in either of the stormwater samples, but TPH-DRO was detected in the Outfall A sample at a concentration of 254 milligrams per liter (mg/L), and in the Outfall B sample at a concentration of 549 mg/L . The presence of TPH-DRO in the stormwater samples is attributed to: 1) parking lot run-off; and/or 2) ongoing industrial activities (asphalt shingle manufacturing).

Of the 13 TAL metal analytes, 5 metals (antimony, cadmium, mercury, selenium, and silver) were not detected in either stormwater sample, arsenic was detected only in the Outfall B sample, and the remaining 7 metal analytes was detected in both Outfall samples. Five metals exceeded their respective SLVs: aluminum, arsenic, copper, lead, and zinc.

All maximum detected metals concentrations occurred in the Outfall B sample. The arsenic concentration in the Outfall B sample (1.05 mg/L) slightly exceeded the MRL of 1.00 $\mu\text{g/L}$ (the SLV is 0.045 $\mu\text{g/L}$). Maximum detected concentrations of aluminum (1,810 $\mu\text{g/L}$), copper (39.0 $\mu\text{g/L}$), lead (7.49 $\mu\text{g/L}$), and zinc (177 $\mu\text{g/L}$) exceeded their respective SLVs by an order of magnitude or more. There are no identified on-site sources for the aluminum, arsenic, and lead detected in the samples (however, trace amounts of aluminum are present in the "Green Diamond" sand used at the facility). Copper and zinc are present in raw materials used at the GS Roofing Site.

During an inspection completed after the October 21, 2009 stormwater sampling event, heavy sediments, composed primarily of limestone dust, were noted in a strip drain located between the East and West Warehouses (see Figure 1). This drain was subsequently cleaned, which may eliminate a possible source for the dissolved metals detected in Outfall B on October 21, 2009. Stormwater sampling events completed after the cleaning of the drain will provide additional data needed to evaluate the significance of the detected metals.

All stormwater samples were also analyzed for TSS and TOC. Results are presented in Table 2. TSS values ranged from 6.86 mg/L (Outfall B) to 10.0 mg/L (Outfall A), and TOC ranged from 5.62 mg/L (Outfall B) to 60.0 mg/L (Outfall A). The stormwater pH (field measurement) was 7.82 at Outfall A and 8.25 at Outfall B.

Data Quality Assurance and Quality Control (QA/QC)

Proposed QA/QC measures included the collection of field duplicate samples, matrix spike/matrix spike duplicate (MS/MSD) samples, and trip and equipment blanks. An equipment blank was not prepared because the stormwater samples were collected directly from the outfalls into laboratory bottleware. TestAmerica did not collect a field duplicate sample on October 21, 2009, and MS/MSD samples and a trip blank were not collected because no VOCs sampling was performed (see previous discussion).

Field sampling procedures were reviewed with TestAmerica. Field duplicate samples, MS/MSD samples, and a trip blank will be collected during subsequent sampling events.

Data validation was performed in accordance with USEPA procedures and the site-specific Quality Assurance Project Plan (QAPP). The Quality Control Summary of the laboratory analytical data package was reviewed. Several nonconformances were noted including: 1) for selected chlorinated herbicide analytes, the MS/MSD were above acceptance limits, calibration verification recoveries were above the method control limits, and/or laboratory control sample (LCS) and/or LCS duplicate recovery were above acceptance limits; however, no analytes were detected; 2) the MSD recovery for benzo(a)pyrene was below the acceptance limit (but the MS and LCS recoveries were within acceptance limits); and 3) the TOC samples were received in inappropriate sample containers. The QA/QC results do not indicate any major qualifications or rejections of any of the reported data.

Future Sampling Events and Reporting

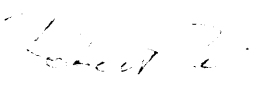
Per the DEQ-approved SWAWP, subsequent interim stormwater sampling reports will be submitted to the DEQ on a quarterly basis. A second stormwater sampling event was completed on November 7, 2009; however, the rainfall event did not meet the sampling criteria (there was no antecedent dry period), so the data from this sampling event will be disqualified (unless they are consistent with subsequent sampling events). Another sampling event is currently scheduled for December 2009. The next interim report, which will discuss the stormwater sampling events completed during Fourth Quarter 2009, will be submitted to DEQ no later than January 31, 2010.

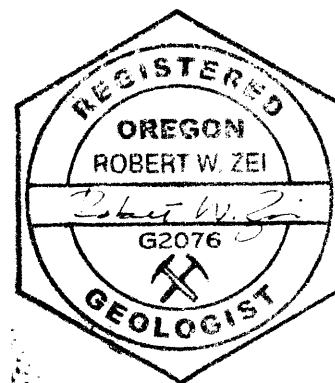
Based on the current sampling schedule, it is anticipated that the four stormwater sampling events will be completed during First Quarter 2010. A comprehensive report, which will include a data summary and evaluation, a summary of any recommended stormwater source control measures and/or best management practices (BMPs), and a proposed Performance Monitoring Workplan, will be submitted to the DEQ within 60 days of receipt of the final stormwater sampling laboratory data package.

If you have any questions or comments on the above information, please feel free to contact me at (610) 594-3940.

Sincerely yours,

FORENSIC ENVIRONMENTAL SERVICES, INC.


Robert W. Zei, Ph.D., RG #G2076
Sr. Project Manager



cc: - Anthony Ordway, CertainTeed
Matthew Prue, CertainTeed
Lauren Alterman, Esq., Saint-Gobain Corporation

TABLES

Table 1
Sample Summary Matrix - First Stormwater Sampling Event
Stormwater Assessment Program (SAP)
GS Roofing Products Site
Portland, Oregon

Matrix : Stormwater

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Parameter	Analytical Method	Sample Number and Locations	Sample Volumes, Container(s), and Preservative	Analysis Holding Time
Total Suspended Solids (TSS)	SM 2540D	Two SPs: Outfall A Outfall B	250 mL 250 mL poly or glass Cool to 4°C	7 days
Total Organic Carbon (TOC)	EPA 9060	Two SPs: Outfall A Outfall B	250 mL 250 mL amber glass H ₃ PO ₄ to pH <2, Cool to 4°C	28 days
Target Analyte List (TAL) Metals	EPA 6010B/6020/7470	Two SPs: Outfall A Outfall B	250 mL 250 mL poly HNO ₃ to pH <2, Cool to 4°C	6 months
NWTPH Dx, HORH	NWTPH Dx	Two SPs: Outfall A Outfall B	1 L 1 L amber glass HCl to pH <2, Cool to 4°C	14 days

SP = sampling point; Dx = diesel; Gx = gasoline; HORH = heavy oil range hydrocarbons; L = liter; mL = milliliters.

Table 1
Sample Summary Matrix - First Stormwater Sampling Event
Stormwater Assessment Program (SAP)
GS Roofing Products Site
Portland, Oregon

Matrix : Stormwater

page 2 of 3

Parameter	Analytical Method	Sample Number and Locations	Sample Volumes, Container(s), and Preservative	Analysis Holding Time
NWTPH Gx	NWTPH Gx	Two SPs: Outfall A Outfall B	3 x 40 mL glass vials w/teflon-lined cap (no headspace) HCl to pH <2, Cool to 4°C	14 days
Volatile Organic Compounds (VOCs)	EPA 8260B	Two SPs: Outfall A Outfall B	3 x 40 mL glass vials w/teflon-lined cap (no headspace) HCl to pH <2, Cool to 4°C	14 days
Semi-Volatile Organic Compounds (SVOCs)	EPA 8270C	Two SPs: Outfall A Outfall B	1 L 1 L amber glass Cool to 4°C	7 days
PAHs & Phthalates	EPA 8270M- SIM	Two SPs: Outfall A Outfall B	1 L 1 L amber glass Cool to 4°C	7 days

SP = sampling point; Dx = diesel; Gx = gasoline; HORH = heavy oil range hydrocarbons; L = liter; mL = milliliters.

Table 1
Sample Summary Matrix - First Stormwater Sampling Event
Stormwater Assessment Program (SAP)
GS Roofing Products Site
Portland, Oregon

Matrix : Stormwater

page 3 of 3

Parameter	Analytical Method	Sample Number and Locations	Sample Volumes, Container(s), and Preservative	Analysis Holding Time
Polychlorinated Biphenyl (PCB) Aroclors*	EPA 8082	Two SPs: Outfall A Outfall B	1 L (see end note) 1 L amber glass Cool to 4°C	7 days
Organochlorine Pesticides*	EPA 8081A	Two SPs: Outfall A Outfall B	1 L (see end note) 1 L amber glass Cool to 4°C	7 days
Chlorinated Herbicides*	EPA 8151A (Mod)	Two SPs: Outfall A Outfall B	250 mL 1 L amber glass Cool to 4°C	7 days

* Contingent parameter - if not detected during initial round of stormwater sampling (and not detected in catch basin sediment samples from same drainage basin) will not be analyzed during subsequent sampling rounds.

The above analytes are listed in sampling order priority (i.e., the higher priority analyses are collected first).

Note: samples for VOC analysis were not collected during the first sampling event.

SP = sampling point; L = liter; mL = milliliters.

Table 2
Stormwater Sampling Results - October 21, 2009
GS Roofing Products Site
Portland, Oregon

	SLV (DEQ 2008) (µg/L)	Laboratory MDL (µg/L)	Laboratory MRL (µg/L)	Outfall A (µg/L)	Outfall B (µg/L)
Total Suspended Solids (TSS) via SM 2540D					
Total Suspended Solids (TSS)	--	3100	10000	10.0	6.86
TOC via EPA Method 9060					
Total Organic Carbon	--	167	1000	60.0	5.62
Metals via EPA Method 6010B/6020/7470					
Aluminum	50	8.30	100	227	1,810
Antimony	6	0.102	1.00	<1.00	<1.00
Arsenic	0.045	0.664	1.00	<1.00	1.05
Cadmium	0.094	0.0714	1.00	<0.500	<0.500
Chromium, total	100	0.121	1.00	2.34	17.1
Copper	2.7	0.133	2.00	17.6	39.0
Lead	0.54	0.0553	1.00	2.78	7.49
Manganese	50	0.640	10.0	19.3	44.6
Mercury	0.77	0.0638	0.200	<0.200	<0.200
Nickel	16	0.180	2.00	1.45	5.04
Selenium	5	0.284	2.00	<0.500	<0.500
Silver	0.12	1.00	1.00	<1.00	<1.00
Zinc	36	0.469	5.00	62.8	177
TPH via NWTPH-Dx & NWTPH-Gx					
TPH Diesel	--	17.9	250	254	549
TPH-Gasoline	--	32.7	80.0	<80.0	<80.0
TPH Heavy Oil	--	27.8	500	<481	<481
Volatile Organic Compounds via EPA Method 8260B					
Acetone	1500	7.76	25.0	NA	NA
Benzene	1.2	0.0900	1.00	NA	NA
Bromochloromethane	--	0.180	1.00	NA	NA
Bromodichloromethane	1.1	0.110	1.00	NA	NA
Bromoform	8.5	0.100	1.00	NA	NA
Bromomethane	8.7	0.170	5.00	NA	NA
2- Butanone (MEK)	7,100	3.50	10.0	NA	NA
Carbon Disulfide	0.92	0.140	10.0	NA	NA
Carbon Tetrachloride	0.51	0.0600	1.00	NA	NA
Chlorobenzene	50	0.0500	1.00	NA	NA
Chlorodibromomethane	0.79	0.0700	1.00	NA	NA
Chloroethane	23	0.110	1.00	NA	NA
Chloroform	0.17	0.0900	1.00	NA	NA
Chloromethane	2.1	0.0800	5.00	NA	NA

Table 2
Stormwater Sampling Results - October 21, 2009
GS Roofing Products Site
Portland, Oregon

	SLV (DEQ 2008) (µg/L)	Laboratory MDL (µg/L)	Laboratory MRL (µg/L)	Outfall A (µg/L)	Outfall B (µg/L)
Volatile Organic Compounds via EPA Method 8260B (cont.)					
1,2- Dibromoethane (EDB)	0.033	0.110	1.00	NA	NA
1,1- Dichloroethane	47	0.0800	1.00	NA	NA
1,2- Dichloroethane (EDC)	0.73	0.100	1.00	NA	NA
cis-1,2-Dichloroethene	61	0.0900	1.00	NA	NA
trans-1,2-Dichloroethene	100	0.100	1.00	NA	NA
1,2- Dichloropropane	0.97	0.110	1.00	NA	NA
cis-1,3-Dichloropropene	0.055	0.0900	1.00	NA	NA
trans-1,3-Dichloropropene	0.055	0.100	1.00	NA	NA
Dibromomethane	61	0.110	1.00	NA	NA
Dichlorodifluoromethane	390	0.110	5.00	NA	NA
Ethylbenzene	7.3	0.0600	1.00	NA	NA
2- Hexanone	99	3.62	10.0	NA	NA
Isopropylbenzene	660	0.0700	2.00	NA	NA
Methylene chloride	8.9	0.160	5.00	NA	NA
Methyl tert-butyl ether	37	0.0900	1.00	NA	NA
4- Methyl-2-Pentanone (MIBK)	170	0.290	5.00	NA	NA
Styrene	100	0.0400	1.00	NA	NA
1,1,1,2- Tetrachloroethane	2.5	0.0900	1.00	NA	NA
1,1,2,2- Tetrachloroethane	0.33	0.0800	1.00	NA	NA
Tetrachloroethene (PCE)	0.12	0.110	1.00	NA	NA
Toluene	9.8	0.110	1.00	NA	NA
1,1,1- Trichloroethane (TCA)	11	0.120	1.00	NA	NA
1,1,2- Trichloroethane	1.2	0.130	1.00	NA	NA
Trichloroethene (TCE)	0.17	0.0800	1.00	NA	NA
Trichlorofluoromethane	1,300	0.0600	1.00	NA	NA
1,2,3- Trichloropropane	0.0095	0.130	1.00	NA	NA
Vinyl Chloride	0.015	0.100	1.00	NA	NA
m,p-Xylene	1.8	0.210	2.00	NA	NA
o-Xylene	13	0.0700	1.00	NA	NA
Xylenes (total)	200	0.210	2.00	NA	NA

Table 2
Stormwater Sampling Results - October 21, 2009
GS Roofing Products Site
Portland, Oregon

	SLV (DEQ 2008) (µg/L)	Laboratory MDL (µg/L)	Laboratory MRL (µg/L)	Outfall A (µg/L)	Outfall B (µg/L)
Semi-Volatile Organic Compounds via EPA Method 8270C					
Oxygen-Containing Compounds					
Benzoic Acid	42	50.0	50.0	<49.5	<48.5
Benzyl Alcohol	8.6	5.00	10.0	<9.90	<9.71
Dibenzofuran	3.7	3.00	5.00	<4.95	<4.85
Isophorone	71	3.00	5.00	<4.95	<4.85
Halogenated Compounds					
1,2,4-Trichlorobenzene	8.2	5.00	5.00	<4.95	<4.85
1,2-Dichlorobenzene	49	3.00	5.00	<4.95	<4.85
1,3-Dichlorobenzene	14	3.00	5.00	<4.95	<4.85
1,4-Dichlorobenzene	2.8	3.00	5.00	<4.95	<4.85
2-Chloronaphthalene	490	3.00	5.00	<4.95	<4.85
3,3'-Dichlorobenzidine	0.028	3.00	5.00	<4.95	<4.85
4-Bromophenyl-phenyl ether	--	3.00	5.00	<4.95	<4.85
4-Chloroaniline	150	10.0	20.0	<19.8	<19.4
4-Chlorophenyl-phenyl ether	0.06	3.00	5.00	<4.95	<4.85
Bis-(2-chloroethoxy) methane	--	5.00	10.0	<9.90	<9.71
Bis-(2-chloroethyl) ether	0.06	3.00	5.00	<4.95	<4.85
Hexachlorobenzene	0.00029	3.00	5.00	<4.95	<4.85
Hexachlorobutadiene	0.86	5.00	10.0	<9.90	<9.71
Hexachlorocyclopentadiene	5.2	5.00	10.0	<9.90	<9.71
Hexachloroethane	3.3	5.00	10.0	<9.90	<9.71
Organonitrogen Compounds					
2,4-Dinitrotoluene	3.4	3.00	5.00	<4.95	<4.85
2,6-Dinitrotoluene	37	3.00	5.00	<4.95	<4.85
2-Nitroaniline	110.0	3.00	5.00	<4.95	<4.85
3-Nitroaniline	3.2	5.00	10.0	<9.90	<9.71
4-Nitroaniline	3.2	5.00	10.0	<9.90	<9.71
Nitrobenzene	3.4	3.00	5.00	<4.95	<4.85
N-Nitroso-di-n-propylamine	0.0096	5.00	10.0	<9.90	<9.71
N-Nitrosodiphenylamine	6	3.00	5.00	<4.95	<4.85
Phenols and Substituted Phenols					
2,4,5-Trichlorophenol	3600	3.00	5.00	<4.95	<4.85
2,4,6-Trichlorophenol	2.4	3.00	5.00	<4.95	<4.85
2,4-Dichlorophenol	110	3.00	5.00	<4.95	<4.85
2,4-Dimethylphenol	730	5.00	10.0	<9.90	<9.71
2,4-Dinitrophenol	73	15.0	25.0	<24.8	<24.3
2-Chlorophenol	30	3.00	5.00	<4.95	<4.85

Table 2
Stormwater Sampling Results - October 21, 2009
GS Roofing Products Site
Portland, Oregon

	SLV (DEQ 2008) (µg/L)	Laboratory MDL (µg/L)	Laboratory MRL (µg/L)	Outfall A (µg/L)	Outfall B (µg/L)
Semi-Volatile Organic Compounds via EPA Method 8270C (cont.)					
Phenols and Substituted Phenols (cont.)					
2-Methylphenol (o-Cresol)	13	5.00	10.0	<9.90	<9.71
2-Nitrophenol	150	3.00	5.00	<4.95	<4.85
4-Chloro-3-methylphenol	--	3.00	5.00	<4.95	<4.85
3,4-Methylphenol	180	3.00	5.00	<4.95	<4.85
4-Nitrophenol	150	10.0	25.0	<24.8	<24.3
Methyl-4,6-Dinitrophenol 2-	150	5.00	10.0	<9.90	<9.71
Pentachlorophenol	0.56	5.00	10.0	<9.90	<9.71
Phenol	2560	3.00	5.00	<4.95	<4.85
Phthalate Esters (but see 8270C-SIM analysis next page)					
bis(2-Ethylhexyl)phthalate	2.2	10.0	10.0	<9.90	<9.71
Butylbenzylphthalate	3	3.00	5.00	<4.95	<4.85
Diethylphthalate	3	3.00	5.00	<4.95	<4.85
Dimethylphthalate	3	3.00	5.00	<4.95	<4.85
Di-n-butylphthalate	3	3.00	5.00	<4.95	<4.85
Di-n-octylphthalate	3	3.00	5.00	<4.95	<4.85
Polycyclic Aromatic Hydrocarbons (PAHs) - (but see 8270C-SIM analysis next page)					
Acenaphthene	0.2	3.00	5.00	<4.95	<4.85
Acenaphthylene	0.2	3.00	5.00	<4.95	<4.85
Anthracene	0.2	3.00	5.00	<4.95	<4.85
Benzo(a)anthracene	0.018	3.00	5.00	<4.95	<4.85
Benzo(a)pyrene	0.018	3.00	5.00	<4.95	<4.85
Benzo(b)fluoranthene	0.018	3.00	5.00	<4.95	<4.85
Benzo(g,h,i)perylene	0.2	3.00	5.00	<4.95	<4.85
Benzo(k)fluoranthene	0.018	3.00	5.00	<4.95	<4.85
Chrysene	0.018	3.00	5.00	<4.95	<4.85
Dibenzo(a,h)anthracene	0.018	3.00	5.00	<4.95	<4.85
Fluoranthene	0.2	3.00	5.00	<4.95	<4.85
Fluorene	0.2	3.00	5.00	<4.95	<4.85
Indeno(1,2,3-cd)pyrene	0.018	3.00	5.00	<4.95	<4.85
2-Methylnaphthalene	0.2	3.00	5.00	<4.95	<4.85
Naphthalene	0.2	3.00	5.00	<4.95	<4.85
Phenanthrene	0.2	3.00	5.00	<4.95	<4.85
Pyrene	0.2	3.00	5.00	<4.95	<4.85

Table 2
Stormwater Sampling Results - October 21, 2009
GS Roofing Products Site
Portland, Oregon

	SLV (DEQ 2008) (µg/L)	Laboratory MDL (µg/L)	Laboratory MRL (µg/L)	Outfall A (µg/L)	Outfall B (µg/L)
Phthalates/PAHs via EPA Method 8270M-SIM					
Phthalate Esters					
bis(2-Ethylhexyl)phthalate	2.2	0.526	1.00	<0.0952	<0.0952
Butylbenzylphthalate	3	0.526	1.00	<0.0952	<0.0952
Diethylphthalate	3	0.526	1.00	<0.0952	<0.0952
Dimethylphthalate	3	0.526	1.00	<0.0952	<0.0952
Di-n-butylphthalate	3	0.526	1.00	<0.0952	<0.0952
Di-n-octylphthalate	3	0.526	1.00	<0.0952	<0.0952
PAHs					
Acenaphthene	0.2	0.0500	0.100	<0.0952	<0.0952
Acenaphthylene	0.2	0.0500	0.100	<0.0952	<0.0952
Anthracene	0.2	0.0500	0.100	<0.0952	<0.0952
Benzo(a)anthracene	0.018	0.0500	0.100	<0.0952	<0.0952
Benzo(a)pyrene	0.018	0.0500	0.100	<0.0952	<0.0952
Benzo(b)fluoranthene	0.018	0.0500	0.100	<0.0952	<0.0952
Benzo(g,h,i)perylene	0.2	0.0500	0.100	<0.0952	<0.0952
Benzo(k)fluoranthene	0.018	0.0500	0.100	<0.0952	<0.0952
Chrysene	0.018	0.0500	0.100	<0.0952	<0.0952
Dibenzo(a,h)anthracene	0.018	0.100	0.200	<0.190	<0.190
Fluoranthene	0.2	0.0500	0.100	<0.0952	0.109
Fluorene	0.2	0.0500	0.100	<0.0952	<0.0952
Indeno(1,2,3-cd)pyrene	0.018	0.0500	0.100	<0.0952	<0.0952
Naphthalene	0.2	0.0500	0.100	<0.0952	<0.0952
Phenanthrene	0.2	0.0500	0.100	<0.0952	<0.0952
Pyrene	0.2	0.0500	0.100	<0.0952	0.118
PCB Aroclors via EPA Method 8082					
Aroclor 1016	0.96	0.250	0.500	<0.481	<0.481
Aroclor 1221	0.034	0.500	1.00	<0.481	<0.481
Aroclor 1232	0.034	0.250	0.500	<0.481	<0.481
Aroclor 1242	0.034	0.250	0.500	<0.481	<0.481
Aroclor 1248	0.034	0.250	0.500	<0.481	<0.481
Aroclor 1254	0.033	0.250	0.500	<0.481	<0.481
Aroclor 1260	0.034	0.250	0.500	<0.481	<0.481

Table 2
Stormwater Sampling Results - October 21, 2009
GS Roofing Products Site
Portland, Oregon

	SLV (DEQ 2008) (µg/L)	Laboratory MDL (µg/L)	Laboratory MRL (µg/L)	Outfall A (µg/L)	Outfall B (µg/L)
Organochlorine Pesticides via EPA Method 8081A					
α - BHC	0.0049	0.0500	0.100	<0.0962	<0.0962
β - BHC	0.017	0.0500	0.100	<0.0962	<0.0962
γ - BHC (Lindane)	0.052	0.0500	0.100	<0.0962	<0.0962
δ - BHC	0.037	0.0500	0.100	<0.0962	<0.0962
Aldrin	0.00005	0.0500	0.100	<0.0962	<0.0962
Chlordane	0.00081	0.500	1.00	<0.0962	<0.0962
DDE	0.00022	0.0500	0.100	<0.0962	<0.0962
DDD	0.00031	0.0500	0.100	<0.0962	<0.0962
DDT	0.00022	0.0500	0.100	<0.0962	<0.0962
DDT - total (DDE+DDD+DDT)	0.2	0.0500	0.100	<0.2886	<0.2886
Dieldrin	0.000054	0.0500	0.100	<0.0962	<0.0962
Endosulfan alpha-	0.056	0.0500	0.100	<0.0962	<0.0962
Endosulfan beta-	0.056	0.0500	0.100	<0.0962	<0.0962
Endosulfan sulfate	89	0.0500	0.100	<0.0962	<0.0962
Endrin	0.036	0.0500	0.100	<0.0962	<0.0962
Endrin aldehyde	0.3	0.0500	0.100	<0.0962	<0.0962
Endrin ketone	--	0.0500	0.100	<0.0962	<0.0962
Heptachlor	0.000079	0.0500	0.100	<0.0962	<0.0962
Heptachlor epoxide	0.000039	0.0500	0.100	<0.0962	<0.0962
Methoxychlor	0.03	0.0500	0.100	<0.0962	<0.0962
Toxaphene	0.0002	2.50	2.50	<2.40	<2.40
Chlorinated Herbicides via EPA Method 8151 (Mod)					
2,4-D	70	0.229	1.00	<1.00	<1.00
2,4-DB	290	0.317	1.00	<1.00	<1.00
2,4,5-TP (Silvex)	50	0.233	1.00	<1.00	<1.00
2,4,5-T	370	0.474	1.00	<1.00	<1.00
Dalapon	200	0.347	5.00	<5.00	<5.00
Dicamba	1,100	0.331	1.00	<1.00	<1.00
Dichlorprop	370	0.192	1.00	<1.00	<1.00
Dinoseb	7	0.277	1.00	<1.00	<1.00
MCPA	18	87.1	300	<300	<300
MCPP	37	33.2	300	<300	<300

Detected analytes in bold.

SLV = screening level value (see Table 3-1 Portland Harbor Joint Source Control Strategy (JSCS) dated December 2005; "--" = value not available; µg/L = micrograms per liter; MDL = laboratory method detection limit; MRL = laboratory method reporting limit; ND = not detected above the MDL.

NA = not analyzed for the indicated parameter (see text)

FIGURES

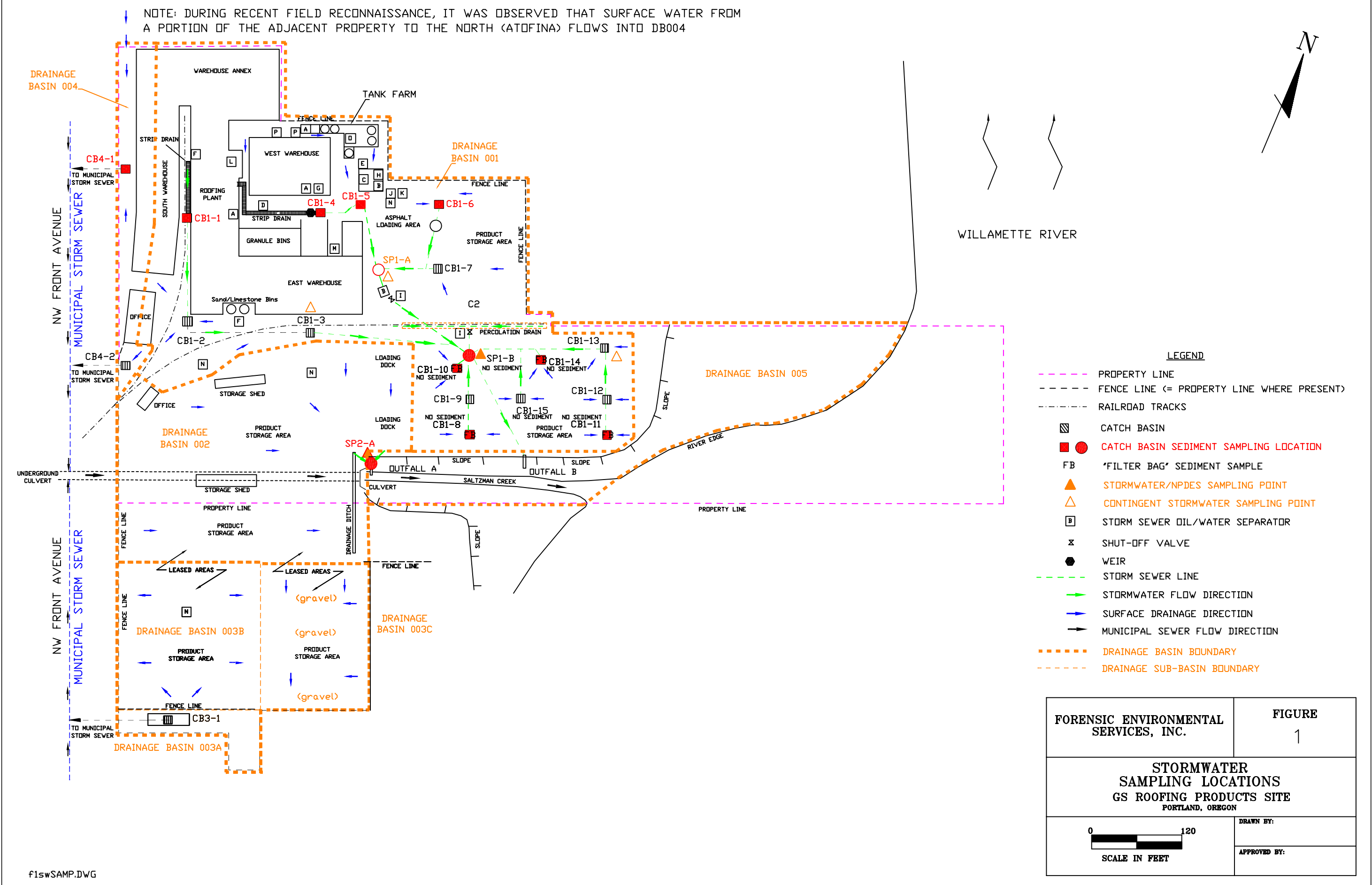
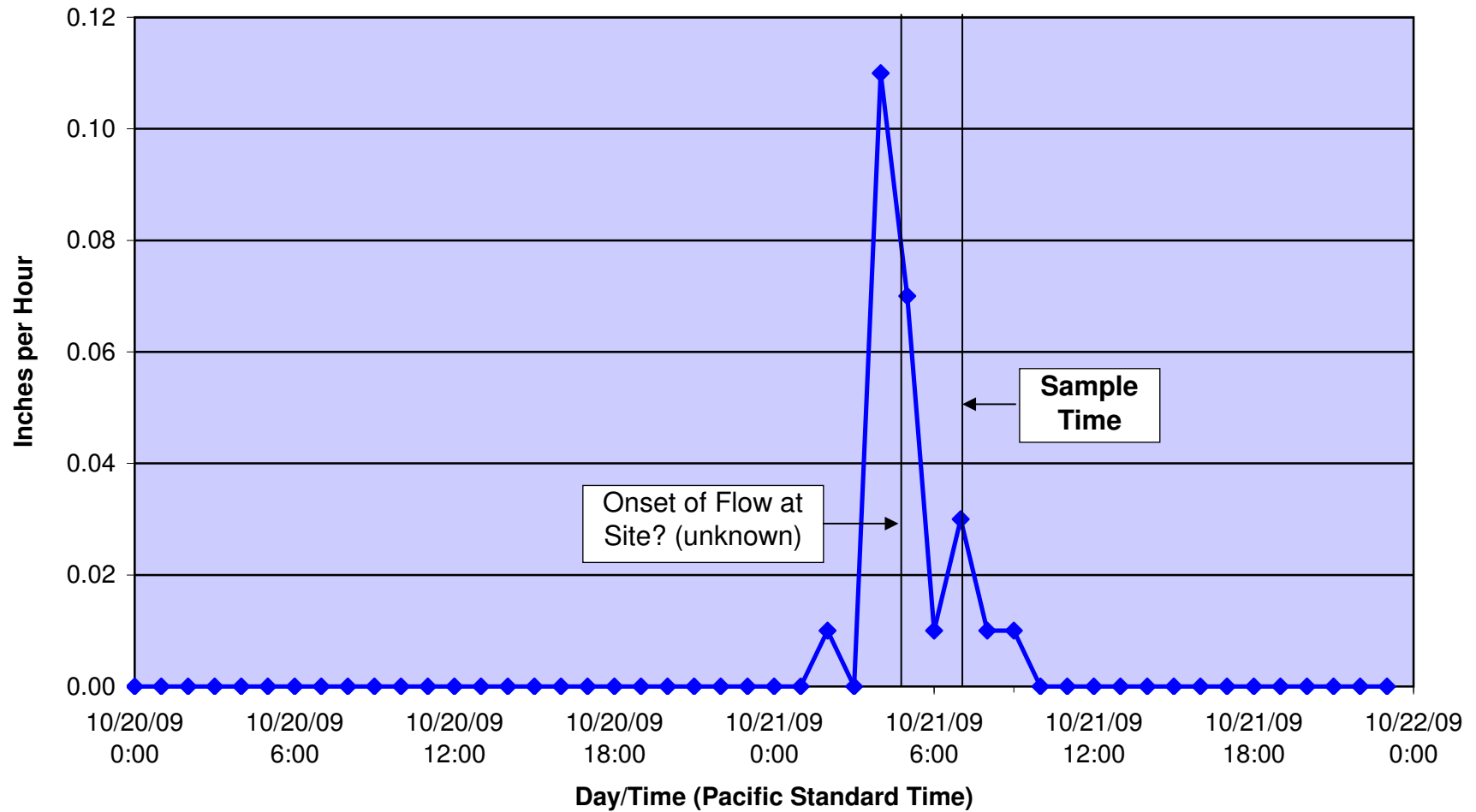


Figure 2
October 20-21, 2009 Hydrograph
Sta. 129 (Astor Elementary School Rain Gauge)



APPENDIX A

LABORATORY DATA REPORT

November 05, 2009

Tony Ordway
CertainTeed Roofing Products Group
6350 NW Front Ave
Portland, OR 97210

RE: Stormwater Assessment

Enclosed are the results of analyses for samples received by the laboratory on 10/22/09 11:45.
The following list is a summary of the Work Orders contained in this report, generated on 11/05/09 16:25.

If you have any questions concerning this report, please feel free to contact me.

<u>Work Order</u>	<u>Project</u>	<u>ProjectNumber</u>
PSJ0790	Stormwater Assessment	none

TestAmerica Portland



Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name:

Stormwater Assessment

Project Number:

none

Report Created:

Project Manager:

Tony Ordway

11/05/09 16:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Outfall A	PSJ0790-01	Water	10/21/09 08:40	10/22/09 11:45
Outfall B	PSJ0790-02	Water	10/21/09 08:45	10/22/09 11:45

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Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Gasoline Hydrocarbons per NW TPH-Gx Method
TestAmerica Portland

Analyte	Method	Result	MDL *	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-01 (Outfall A)				Water			Sampled: 10/21/09 08:40			
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	-----	80.0	ug/l	1x	9100925	10/26/09 12:30	10/26/09 21:15	
<i>Surrogate(s): 4-BFB (FID)</i>				95.5%		50 - 150 %				"
PSJ0790-02 (Outfall B)				Water			Sampled: 10/21/09 08:45			
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	-----	80.0	ug/l	1x	9100925	10/26/09 12:30	10/26/09 21:47	
<i>Surrogate(s): 4-BFB (FID)</i>				99.1%		50 - 150 %				"

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Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-01 (Outfall A)		Water				Sampled: 10/21/09 08:40				
Diesel Range Organics	NWTPH-Dx	0.254	-----	0.240	mg/l	1x	9100962	10/27/09 15:30	10/27/09 18:26	Q12
Heavy Oil Range Hydrocarbons	"	ND	-----	0.481	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>				75.1%		50 - 150 %				"
PSJ0790-02 (Outfall B)		Water				Sampled: 10/21/09 08:45				
Diesel Range Organics	NWTPH-Dx	0.549	-----	0.240	mg/l	1x	9100962	10/27/09 15:30	10/27/09 18:46	Q10
Heavy Oil Range Hydrocarbons	"	1.25	-----	0.481	"	"	"	"	"	
<i>Surrogate(s): 1-Chlorooctadecane</i>				77.6%		50 - 150 %				"

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Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Total Metals per EPA 200 Series Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	-------	----------	----------	-------

PSJ0790-01 (Outfall A)

Water

Sampled: 10/21/09 08:40

Aluminum	EPA 200.7	0.227	----	0.100	mg/l	1x	9100956	10/27/09 08:16	10/27/09 14:13	
Antimony	EPA 200.8	ND	----	0.00100	"	"	9100951	10/27/09 08:03	10/28/09 01:20	
Arsenic	"	ND	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.000500	"	"	"	"	"	
Chromium	"	0.00234	----	0.00200	"	"	"	"	"	
Copper	"	0.0176	----	0.00200	"	"	"	"	"	
Lead	"	0.00278	----	0.00100	"	"	"	"	"	
Manganese	"	0.0193	----	0.00200	"	"	"	"	"	
Nickel	"	0.00145	----	0.00100	"	"	"	"	"	
Selenium	"	ND	----	0.000500	"	"	"	"	"	
Silver	"	ND	----	0.00100	"	"	"	"	"	
Zinc	"	0.0628	----	0.00500	"	"	"	"	"	

PSJ0790-02 (Outfall B)

Water

Sampled: 10/21/09 08:45

Aluminum	EPA 200.7	1.81	----	0.100	mg/l	1x	9100956	10/27/09 08:16	10/27/09 14:19	
Antimony	EPA 200.8	ND	----	0.00100	"	"	9100951	10/27/09 08:03	10/28/09 01:27	
Arsenic	"	0.00105	----	0.00100	"	"	"	"	"	
Cadmium	"	ND	----	0.000500	"	"	"	"	"	
Chromium	"	0.0171	----	0.00200	"	"	"	"	"	
Copper	"	0.0390	----	0.00200	"	"	"	"	"	
Lead	"	0.00749	----	0.00100	"	"	"	"	"	
Manganese	"	0.0446	----	0.00200	"	"	"	"	"	
Nickel	"	0.00504	----	0.00100	"	"	"	"	"	
Selenium	"	ND	----	0.000500	"	"	"	"	"	
Silver	"	ND	----	0.00100	"	"	"	"	"	
Zinc	"	0.177	----	0.00500	"	"	"	"	"	

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Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**
Project Number: none
Project Manager: Tony Ordway

Report Created:
11/05/09 16:25

Total Mercury per EPA Method 7470A
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-01 (Outfall A)		Water				Sampled: 10/21/09 08:40				
Mercury	EPA 7470A	ND	-----	0.000200	mg/l	1x	9110074	11/03/09 11:09	11/04/09 13:45	
PSJ0790-02 (Outfall B)		Water				Sampled: 10/21/09 08:45				
Mercury	EPA 7470A	ND	-----	0.000200	mg/l	1x	9110074	11/03/09 11:09	11/04/09 13:47	

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Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Organochlorine Pesticides and PCBs per EPA Methods 8081A/8082

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-01 (Outfall A)				Water				Sampled: 10/21/09 08:40		
Aldrin	8081A/8082	ND	----	0.0962	ug/l	1x	9100907	10/27/09 12:30	10/31/09 13:46	
alpha-BHC	"	ND	----	0.0962	"	"	"	"	"	
beta-BHC	"	ND	----	0.0962	"	"	"	"	"	
delta-BHC	"	ND	----	0.0962	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	----	0.0962	"	"	"	"	"	
alpha-Chlordane	"	ND	----	0.0962	"	"	"	"	"	
Chlordane (tech)	"	ND	----	0.962	"	"	"	"	"	
gamma-Chlordane	"	ND	----	0.0962	"	"	"	"	"	
4,4'-DDD	"	ND	----	0.0962	"	"	"	"	"	
4,4'-DDE	"	ND	----	0.0962	"	"	"	"	"	
4,4'-DDT	"	ND	----	0.0962	"	"	"	"	"	
Dieldrin	"	ND	----	0.0962	"	"	"	"	"	
Endosulfan I	"	ND	----	0.0962	"	"	"	"	"	
Endosulfan II	"	ND	----	0.0962	"	"	"	"	"	
Endosulfan sulfate	"	ND	----	0.0962	"	"	"	"	"	
Endrin	"	ND	----	0.0962	"	"	"	"	"	
Endrin aldehyde	"	ND	----	0.0962	"	"	"	"	"	
Endrin ketone	"	ND	----	0.0962	"	"	"	"	"	
Heptachlor	"	ND	----	0.0962	"	"	"	"	"	
Heptachlor epoxide	"	ND	----	0.0962	"	"	"	"	"	
Methoxychlor	"	ND	----	0.0962	"	"	"	"	"	
Toxaphene	"	ND	----	2.40	"	"	"	"	"	
Aroclor 1016	"	ND	----	0.481	"	"	"	"	11/03/09 22:49	
Aroclor 1221	"	ND	----	0.962	"	"	"	"	"	
Aroclor 1232	"	ND	----	0.481	"	"	"	"	"	
Aroclor 1242	"	ND	----	0.481	"	"	"	"	"	
Aroclor 1248	"	ND	----	0.481	"	"	"	"	"	
Aroclor 1254	"	ND	----	0.481	"	"	"	"	"	
Aroclor 1260	"	ND	----	0.481	"	"	"	"	"	
<i>Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene</i>				64.2%		16 - 137 %			10/31/09 13:46	
<i>Decachlorobiphenyl</i>				38.1%		12 - 130 %			11/03/09 22:49	

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Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Organochlorine Pesticides and PCBs per EPA Methods 8081A/8082

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-02 (Outfall B)				Water			Sampled: 10/21/09 08:45			
Aldrin	8081A/8082	ND	----	0.0962	ug/l	1x	9100907	10/27/09 12:30	10/31/09 15:57	
alpha-BHC	"	ND	----	0.0962	"	"	"	"	"	
beta-BHC	"	ND	----	0.0962	"	"	"	"	"	
delta-BHC	"	ND	----	0.0962	"	"	"	"	"	
gamma-BHC (Lindane)	"	ND	----	0.0962	"	"	"	"	"	
alpha-Chlordane	"	ND	----	0.0962	"	"	"	"	"	
Chlordane (tech)	"	ND	----	0.962	"	"	"	"	"	
gamma-Chlordane	"	ND	----	0.0962	"	"	"	"	"	
4,4'-DDD	"	ND	----	0.0962	"	"	"	"	"	
4,4'-DDE	"	ND	----	0.0962	"	"	"	"	"	
4,4'-DDT	"	ND	----	0.0962	"	"	"	"	"	
Dieldrin	"	ND	----	0.0962	"	"	"	"	"	
Endosulfan I	"	ND	----	0.0962	"	"	"	"	"	
Endosulfan II	"	ND	----	0.0962	"	"	"	"	"	
Endosulfan sulfate	"	ND	----	0.0962	"	"	"	"	"	
Endrin	"	ND	----	0.0962	"	"	"	"	"	
Endrin aldehyde	"	ND	----	0.0962	"	"	"	"	"	
Endrin ketone	"	ND	----	0.0962	"	"	"	"	"	
Heptachlor	"	ND	----	0.0962	"	"	"	"	"	
Heptachlor epoxide	"	ND	----	0.0962	"	"	"	"	"	
Methoxychlor	"	ND	----	0.0962	"	"	"	"	"	
Toxaphene	"	ND	----	2.40	"	"	"	"	"	
Aroclor 1016	"	ND	----	0.481	"	"	"	"	11/03/09 23:11	
Aroclor 1221	"	ND	----	0.962	"	"	"	"	"	
Aroclor 1232	"	ND	----	0.481	"	"	"	"	"	
Aroclor 1242	"	ND	----	0.481	"	"	"	"	"	
Aroclor 1248	"	ND	----	0.481	"	"	"	"	"	
Aroclor 1254	"	ND	----	0.481	"	"	"	"	"	
Aroclor 1260	"	ND	----	0.481	"	"	"	"	"	
<i>Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene</i>				61.3%			16 - 137 %		10/31/09 15:57	
<i>Decachlorobiphenyl</i>				33.1%			12 - 130 %		11/03/09 23:11	

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Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Chlorinated Herbicides per EPA Method 8151A Modified

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-01 (Outfall A)				Water				Sampled: 10/21/09 08:40		
2,4-D	8151mod	ND	----	1.00	ug/l	1x	9100857	10/23/09 08:53	10/27/09 12:13	
2,4-DB	"	ND	----	1.00	"	"	"	"	"	
2,4,5-T	"	ND	----	1.00	"	"	"	"	"	
2,4,5-TP (Silvex)	"	ND	----	1.00	"	"	"	"	"	
Dalapon	"	ND	----	5.00	"	"	"	"	"	C
Dicamba	"	ND	----	1.00	"	"	"	"	"	
Dichlorprop	"	ND	----	1.00	"	"	"	"	"	
Dinoseb	"	ND	----	1.00	"	"	"	"	"	C
MCPA	"	ND	----	300	"	"	"	"	"	
MCP	"	ND	----	300	"	"	"	"	"	
Surrogate(s): 2,4-Dichlorophenylacetic acid 118% 40 - 160 % "										

PSJ0790-02 (Outfall B)				Water				Sampled: 10/21/09 08:45		
2,4-D	8151mod	ND	----	1.00	ug/l	1x	9100857	10/23/09 08:53	10/27/09 12:53	
2,4-DB	"	ND	----	1.00	"	"	"	"	"	
2,4,5-T	"	ND	----	1.00	"	"	"	"	"	
2,4,5-TP (Silvex)	"	ND	----	1.00	"	"	"	"	"	
Dalapon	"	ND	----	5.00	"	"	"	"	"	C
Dicamba	"	ND	----	1.00	"	"	"	"	"	
Dichlorprop	"	ND	----	1.00	"	"	"	"	"	
Dinoseb	"	ND	----	1.00	"	"	"	"	"	C
MCPA	"	ND	----	300	"	"	"	"	"	
MCP	"	ND	----	300	"	"	"	"	"	
Surrogate(s): 2,4-Dichlorophenylacetic acid 117% 40 - 160 % "										

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Brian L Cone

Brian Cone, Industrial Services Manager

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<p align="center">Semivolatile Organic Compounds per EPA Method 8270C</p> <p align="center">TestAmerica Portland</p>	
-----------------------------------------------------------------------------------------------------------------------------	--

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Brian L Cone
Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Semivolatile Organic Compounds per EPA Method 8270C

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-01 (Outfall A)		Water		Sampled: 10/21/09 08:40						
2,6-Dinitrotoluene	EPA 8270C	ND	----	4.95	ug/l	1x	9100866	10/23/09 14:15	10/29/09 20:20	
Bis(2-ethylhexyl)phthalate	"	ND	----	9.90	"	"	"	"	"	
Fluoranthene	"	ND	----	4.95	"	"	"	"	"	
Fluorene	"	ND	----	4.95	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	4.95	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	9.90	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	9.90	"	"	"	"	"	
Hexachloroethane	"	ND	----	9.90	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	4.95	"	"	"	"	"	
Isophorone	"	ND	----	4.95	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	4.95	"	"	"	"	"	
2-Methylphenol	"	ND	----	9.90	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	4.95	"	"	"	"	"	
Naphthalene	"	ND	----	4.95	"	"	"	"	"	
2-Nitroaniline	"	ND	----	4.95	"	"	"	"	"	
3-Nitroaniline	"	ND	----	9.90	"	"	"	"	"	
4-Nitroaniline	"	ND	----	9.90	"	"	"	"	"	
Nitrobenzene	"	ND	----	4.95	"	"	"	"	"	
2-Nitrophenol	"	ND	----	4.95	"	"	"	"	"	
4-Nitrophenol	"	ND	----	24.8	"	"	"	"	"	
N-Nitrosodi-n-propylamine	"	ND	----	9.90	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	4.95	"	"	"	"	"	
Pentachlorophenol	"	ND	----	9.90	"	"	"	"	"	
Phenanthrene	"	ND	----	4.95	"	"	"	"	"	
Phenol	"	ND	----	4.95	"	"	"	"	"	
Pyrene	"	ND	----	4.95	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	4.95	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	4.95	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	4.95	"	"	"	"	"	
<hr/>										
Surrogate(s):	2-Fluorobiphenyl			86.9%		20 - 120 %				"
	2-Fluorophenol			89.3%		10 - 120 %				"
	Nitrobenzene-d5			102%		20 - 130 %				"
	Phenol-d6			94.8%		10 - 125 %				"
	p-Terphenyl-d14			90.2%		35 - 130 %				"
	2,4,6-Tribromophenol			112%		20 - 130 %				"

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Brian Cone, Industrial Services Manager

Semivolatile Organic Compounds per EPA Method 8270C
TestAmerica Portland

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Brian L Cone
Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Semivolatile Organic Compounds per EPA Method 8270C

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-02 (Outfall B)		Water		Sampled: 10/21/09 08:45						
2,6-Dinitrotoluene	EPA 8270C	ND	----	4.85	ug/l	1x	9100866	10/23/09 14:15	10/29/09 21:05	
Bis(2-ethylhexyl)phthalate	"	ND	----	9.71	"	"	"	"	"	
Fluoranthene	"	ND	----	4.85	"	"	"	"	"	
Fluorene	"	ND	----	4.85	"	"	"	"	"	
Hexachlorobenzene	"	ND	----	4.85	"	"	"	"	"	
Hexachlorobutadiene	"	ND	----	9.71	"	"	"	"	"	
Hexachlorocyclopentadiene	"	ND	----	9.71	"	"	"	"	"	
Hexachloroethane	"	ND	----	9.71	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	4.85	"	"	"	"	"	
Isophorone	"	ND	----	4.85	"	"	"	"	"	
2-Methylnaphthalene	"	ND	----	4.85	"	"	"	"	"	
2-Methylphenol	"	ND	----	9.71	"	"	"	"	"	
3-,4-Methylphenol	"	ND	----	4.85	"	"	"	"	"	
Naphthalene	"	ND	----	4.85	"	"	"	"	"	
2-Nitroaniline	"	ND	----	4.85	"	"	"	"	"	
3-Nitroaniline	"	ND	----	9.71	"	"	"	"	"	
4-Nitroaniline	"	ND	----	9.71	"	"	"	"	"	
Nitrobenzene	"	ND	----	4.85	"	"	"	"	"	
2-Nitrophenol	"	ND	----	4.85	"	"	"	"	"	
4-Nitrophenol	"	ND	----	24.3	"	"	"	"	"	
N-Nitrosodi-n-propylamine	"	ND	----	9.71	"	"	"	"	"	
N-Nitrosodiphenylamine	"	ND	----	4.85	"	"	"	"	"	
Pentachlorophenol	"	ND	----	9.71	"	"	"	"	"	
Phenanthrene	"	ND	----	4.85	"	"	"	"	"	
Phenol	"	ND	----	4.85	"	"	"	"	"	
Pyrene	"	ND	----	4.85	"	"	"	"	"	
1,2,4-Trichlorobenzene	"	ND	----	4.85	"	"	"	"	"	
2,4,5-Trichlorophenol	"	ND	----	4.85	"	"	"	"	"	
2,4,6-Trichlorophenol	"	ND	----	4.85	"	"	"	"	"	
<hr/>										
Surrogate(s):	2-Fluorobiphenyl			83.8%		20 - 120 %				"
	2-Fluorophenol			83.1%		10 - 120 %				"
	Nitrobenzene-d5			100%		20 - 130 %				"
	Phenol-d6			89.5%		10 - 125 %				"
	p-Terphenyl-d14			89.0%		35 - 130 %				"
	2,4,6-Tribromophenol			105%		20 - 130 %				"

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Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Polynuclear Aromatic Compounds per EPA 8270M-SIM

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-01 (Outfall A)		Water				Sampled: 10/21/09 08:40				
Acenaphthene	EPA 8270m	ND	----	0.0952	ug/l	1x	9100997	10/28/09 10:30	10/30/09 17:04	
Acenaphthylene	"	ND	----	0.0952	"	"	"	"	"	
Anthracene	"	ND	----	0.0952	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0952	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0952	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0952	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0952	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0952	"	"	"	"	"	
Chrysene	"	ND	----	0.0952	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.190	"	"	"	"	"	
Fluoranthene	"	ND	----	0.0952	"	"	"	"	"	
Fluorene	"	ND	----	0.0952	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0952	"	"	"	"	"	
Naphthalene	"	ND	----	0.0952	"	"	"	"	"	
Phenanthrene	"	ND	----	0.0952	"	"	"	"	"	
Pyrene	"	ND	----	0.0952	"	"	"	"	"	
Surrogate(s): Fluorene-d10				98.3%		25 - 125 %				"
Pyrene-d10				99.8%		23 - 150 %				"
Benzo (a) pyrene-d12				95.1%		10 - 125 %				"

PSJ0790-02 (Outfall B)		Water				Sampled: 10/21/09 08:45				
Acenaphthene	EPA 8270m	ND	----	0.0952	ug/l	1x	9100997	10/28/09 10:30	10/30/09 17:33	
Acenaphthylene	"	ND	----	0.0952	"	"	"	"	"	
Anthracene	"	ND	----	0.0952	"	"	"	"	"	
Benzo (a) anthracene	"	ND	----	0.0952	"	"	"	"	"	
Benzo (a) pyrene	"	ND	----	0.0952	"	"	"	"	"	
Benzo (b) fluoranthene	"	ND	----	0.0952	"	"	"	"	"	
Benzo (ghi) perylene	"	ND	----	0.0952	"	"	"	"	"	
Benzo (k) fluoranthene	"	ND	----	0.0952	"	"	"	"	"	
Chrysene	"	ND	----	0.0952	"	"	"	"	"	
Dibenzo (a,h) anthracene	"	ND	----	0.190	"	"	"	"	"	
Fluoranthene	"	0.109	----	0.0952	"	"	"	"	"	
Fluorene	"	ND	----	0.0952	"	"	"	"	"	
Indeno (1,2,3-cd) pyrene	"	ND	----	0.0952	"	"	"	"	"	
Naphthalene	"	ND	----	0.0952	"	"	"	"	"	
Phenanthrene	"	ND	----	0.0952	"	"	"	"	"	

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Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Polynuclear Aromatic Compounds per EPA 8270M-SIM

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-02 (Outfall B)		Water				Sampled: 10/21/09 08:45				
Pyrene	EPA 8270m	0.118	-----	0.0952	ug/l	1x	9100997	10/28/09 10:30	10/30/09 17:33	
Surrogate(s): Fluorene-d10				93.2%		25 - 125 %				"
Pyrene-d10				94.7%		23 - 150 %				"
Benzo (a) pyrene-d12				86.7%		10 - 125 %				"

TestAmerica Portland

Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Phthalates per EPA 8270-SIM

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-01 (Outfall A)		Water				Sampled: 10/21/09 08:40				
Dimethyl phthalate	EPA 8270m	ND	----	0.952	ug/l	1x	9100997	10/28/09 10:30	11/03/09 16:42	
Diethyl phthalate	"	ND	----	0.952	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	0.952	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	0.952	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	0.952	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	0.952	"	"	"	"	"	
<i>Surrogate(s): 2-Fluorobiphenyl</i>				60.6%	10 - 150 %		"			
<i>p-Terphenyl-d14</i>				82.7%	10 - 150 %		"			

PSJ0790-02 (Outfall B)		Water				Sampled: 10/21/09 08:45				
Dimethyl phthalate	EPA 8270m	ND	----	0.952	ug/l	1x	9100997	10/28/09 10:30	11/03/09 17:17	
Diethyl phthalate	"	ND	----	0.952	"	"	"	"	"	
Di-n-butyl phthalate	"	ND	----	0.952	"	"	"	"	"	
Butyl benzyl phthalate	"	ND	----	0.952	"	"	"	"	"	
Bis(2-ethylhexyl)phthalate	"	ND	----	0.952	"	"	"	"	"	
Di-n-octyl phthalate	"	ND	----	0.952	"	"	"	"	"	
<i>Surrogate(s): 2-Fluorobiphenyl</i>				58.9%	10 - 150 %		"			
<i>p-Terphenyl-d14</i>				80.2%	10 - 150 %		"			

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Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Conventional Chemistry Parameters per Standard Methods

TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-01 (Outfall A)		Water				Sampled: 10/21/09 08:40				
Total Suspended Solids	SM 2540D	10.0	-----	10.0	mg/l	1x	9100980	10/27/09 14:08	10/27/09 17:54	
Total Organic Carbon	SM 5310C	6.86	-----	1.00	"	"	9100953	10/27/09 08:12	10/28/09 12:41	P4
PSJ0790-02 (Outfall B)		Water				Sampled: 10/21/09 08:45				
Total Suspended Solids	SM 2540D	60.0	-----	10.0	mg/l	1x	9100980	10/27/09 14:08	10/27/09 17:54	
Total Organic Carbon	SM 5310C	5.62	-----	1.00	"	"	9100953	10/27/09 08:12	10/28/09 12:41	P4

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Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Field Testing of Conventional Chemistry Parameters per APHA/EPA Methods
TestAmerica Portland

Analyte	Method	Result	MDL*	MRL	Units	Dil	Batch	Prepared	Analyzed	Notes
PSJ0790-01 (Outfall A)		Water		Sampled: 10/21/09 08:40						
pH	EPA 150.1	7.82	-----		pH Units	1x	9100891	10/21/09 08:45	10/21/09 08:50	
PSJ0790-02 (Outfall B)		Water		Sampled: 10/21/09 08:45						
pH	EPA 150.1	8.25	-----		pH Units	1x	9100891	10/21/09 08:50	10/21/09 08:55	

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Gasoline Hydrocarbons per NW TPH-Gx Method - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100925

Water Preparation Method: EPA 5030B

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100925-BLK1)								Extracted: 10/26/09 12:30						
Gasoline Range Hydrocarbons	NW TPH-Gx	ND	---	80.0	ug/l	1x	--	--	--	--	--	--	10/26/09 16:21	
Surrogate(s): 4-BFB (FID)		Recovery:	99.2%	Limits: 50-150%		10/26/09 16:21								
LCS (9100925-BS1)								Extracted: 10/26/09 12:30						
Gasoline Range Hydrocarbons	NW TPH-Gx	473	---	80.0	ug/l	1x	--	500	94.5%	(70-130)	--	--	10/26/09 15:15	
Surrogate(s): 4-BFB (FID)		Recovery:	104%	Limits: 50-150%		10/26/09 15:15								
LCS Dup (9100925-BSD1)								Extracted: 10/26/09 12:30						
Gasoline Range Hydrocarbons	NW TPH-Gx	445	---	80.0	ug/l	1x	--	500	89.0%	(70-130)	6.03%	(35)	10/26/09 15:48	
Surrogate(s): 4-BFB (FID)		Recovery:	100%	Limits: 50-150%		10/26/09 15:48								
Duplicate (9100925-DUP1)				QC Source: PSJ0802-01				Extracted: 10/26/09 12:30						
Gasoline Range Hydrocarbons	NW TPH-Gx	13500	---	1600	ug/l	20x	12400	--	--	--	8.95%	(35)	10/26/09 22:53	
Surrogate(s): 4-BFB (FID)		Recovery:	96.8%	Limits: 50-150%		10/26/09 22:53								

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Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Diesel and Heavy Range Hydrocarbons per NWTPH-Dx Method - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100962

Water Preparation Method: EPA 3510 Fuels

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100962-BLK1)										Extracted: 10/27/09 15:30				
Diesel Range Organics	NWTPH-Dx	ND	---	0.250	mg/l	1x	--	--	--	--	--	--	10/27/09 17:27	
Heavy Oil Range Hydrocarbons	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Surrogate(s): 1-Chlorooctadecane		Recovery:	75.5%	Limits: 50-150%		10/27/09 17:27								
LCS (9100962-BS1)										Extracted: 10/27/09 15:30				
Diesel Range Organics	NWTPH-Dx	2.48	---	0.250	mg/l	1x	--	2.50	99.2%	(50-150)	--	--	10/27/09 17:46	
Heavy Oil Range Hydrocarbons	"	1.48	---	0.500	"	"	--	1.50	98.9%	"	--	--	"	
Surrogate(s): 1-Chlorooctadecane		Recovery:	71.7%	Limits: 50-150%		10/27/09 17:46								
LCS Dup (9100962-BSD1)										Extracted: 10/27/09 15:30				
Diesel Range Organics	NWTPH-Dx	2.50	---	0.250	mg/l	1x	--	2.50	100%	(50-150)	0.879% (35)		10/27/09 18:06	
Heavy Oil Range Hydrocarbons	"	1.50	---	0.500	"	"	--	1.50	100%	"	1.31%	"	"	
Surrogate(s): 1-Chlorooctadecane		Recovery:	78.0%	Limits: 50-150%		10/27/09 18:06								

TestAmerica Portland

Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**
Project Number: none
Project Manager: Tony Ordway

Report Created:
11/05/09 16:25

Total Metals per EPA 200 Series Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100951

Water Preparation Method: EPA 200/3005

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

Blank (9100951-BLK1)

Extracted: 10/27/09 08:03

Antimony	EPA 200.8	ND	---	0.00100	mg/l	1x	--	--	--	--	--	--	10/27/09 23:29	
Arsenic	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Cadmium	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
Chromium	"	ND	---	0.00200	"	"	--	--	--	--	--	--	"	
Copper	"	ND	---	0.00200	"	"	--	--	--	--	--	--	"	
Lead	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Manganese	"	ND	---	0.00200	"	"	--	--	--	--	--	--	"	
Nickel	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Selenium	"	ND	---	0.000500	"	"	--	--	--	--	--	--	"	
Silver	"	ND	---	0.00100	"	"	--	--	--	--	--	--	"	
Zinc	"	ND	---	0.00500	"	"	--	--	--	--	--	--	"	

LCS (9100951-BS1)

Extracted: 10/27/09 08:03

Antimony	EPA 200.8	0.0483	---	0.00100	mg/l	1x	--	0.0500	96.5%	(85-115)	--	--	10/27/09 23:37	
Arsenic	"	0.0978	---	0.00100	"	"	--	0.100	97.8%	"	--	--	"	
Cadmium	"	0.0925	---	0.000500	"	"	--	"	92.5%	"	--	--	"	
Chromium	"	0.0954	---	0.00200	"	"	--	"	95.4%	"	--	--	"	
Copper	"	0.0972	---	0.00200	"	"	--	"	97.2%	"	--	--	"	
Lead	"	0.0984	---	0.00100	"	"	--	"	98.4%	"	--	--	"	
Manganese	"	0.0965	---	0.00200	"	"	--	"	96.5%	"	--	--	"	
Nickel	"	0.0960	---	0.00100	"	"	--	"	96.0%	"	--	--	"	
Selenium	"	0.0965	---	0.000500	"	"	--	"	96.5%	"	--	--	"	
Silver	"	0.0486	---	0.00100	"	"	--	0.0500	97.1%	"	--	--	"	
Zinc	"	0.0972	---	0.00500	"	"	--	0.100	97.2%	"	--	--	"	

Duplicate (9100951-DUP1)

QC Source: PSJ0784-01

Extracted: 10/27/09 08:03

Antimony	EPA 200.8	ND	---	0.00100	mg/l	1x	ND	--	--	--	4.65%	(20)	10/28/09 00:38	
Arsenic	"	ND	---	0.00100	"	"	ND	--	--	--	6.90%	"	"	
Cadmium	"	ND	---	0.000500	"	"	ND	--	--	--	11.1%	"	"	
Chromium	"	0.00582	---	0.00200	"	"	0.00546	--	--	--	6.38%	"	"	
Copper	"	0.273	---	0.00200	"	"	0.272	--	--	--	0.366%	"	"	
Lead	"	0.00744	---	0.00100	"	"	0.00736	--	--	--	1.08%	"	"	
Manganese	"	0.0154	---	0.00200	"	"	0.0152	--	--	--	1.63%	"	"	
Nickel	"	0.00330	---	0.00100	"	"	0.00309	--	--	--	6.57%	"	"	
Selenium	"	ND	---	0.000500	"	"	ND	--	--	--	NR	"	"	
Silver	"	ND	---	0.00100	"	"	ND	--	--	--	NR	"	"	
Zinc	"	0.625	---	0.00500	"	"	0.622	--	--	--	0.593%	"	"	

TestAmerica Portland

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Brian L Cone

Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Total Metals per EPA 200 Series Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100951

Water Preparation Method: EPA 200/3005

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike (9100951-MS1)			QC Source: PSJ0784-01					Extracted: 10/27/09 08:03						
Antimony	EPA 200.8	0.0500	---	0.00100	mg/l	1x	0.000210	0.0500	99.5%	(70-130)	--	--	10/28/09 01:12	
Arsenic	"	0.100	---	0.00100	"	"	0.000700	0.100	99.7%	"	--	--	"	
Cadmium	"	0.0953	---	0.000500	"	"	0.000170	"	95.2%	"	--	--	"	
Chromium	"	0.102	---	0.00200	"	"	0.00546	"	96.5%	(75-125)	--	--	"	
Copper	"	0.370	---	0.00200	"	"	0.272	"	97.4%	"	--	--	"	
Lead	"	0.108	---	0.00100	"	"	0.00736	"	101%	"	--	--	"	
Manganese	"	0.113	---	0.00200	"	"	0.0152	"	97.4%	(70-130)	--	--	"	
Nickel	"	0.0993	---	0.00100	"	"	0.00309	"	96.2%	"	--	--	"	
Selenium	"	0.0980	---	0.000500	"	"	ND	"	98.0%	"	--	--	"	
Silver	"	0.0492	---	0.00100	"	"	ND	0.0500	98.5%	"	--	--	"	
Zinc	"	0.720	---	0.00500	"	"	0.622	0.100	98.2%	"	--	--	"	

Matrix Spike (9100951-MS2)			QC Source: PSJ0793-04					Extracted: 10/27/09 08:03						
Antimony	EPA 200.8	0.0517	---	0.00100	mg/l	1x	ND	0.0500	103%	(70-130)	--	--	10/28/09 01:50	
Arsenic	"	0.0999	---	0.00100	"	"	ND	0.100	99.9%	"	--	--	"	
Cadmium	"	0.0974	---	0.000500	"	"	ND	"	97.4%	"	--	--	"	
Chromium	"	0.0941	---	0.00200	"	"	0.000610	"	93.5%	(75-125)	--	--	"	
Copper	"	0.102	---	0.00200	"	"	0.0110	"	91.6%	"	--	--	"	
Lead	"	0.0940	---	0.00100	"	"	ND	"	94.0%	"	--	--	"	
Manganese	"	0.115	---	0.00200	"	"	0.0232	"	91.8%	(70-130)	--	--	"	
Nickel	"	0.0938	---	0.00100	"	"	0.00173	"	92.1%	"	--	--	"	
Selenium	"	0.0966	---	0.000500	"	"	ND	"	96.6%	"	--	--	"	
Silver	"	0.0475	---	0.00100	"	"	ND	0.0500	95.1%	"	--	--	"	
Zinc	"	0.103	---	0.00500	"	"	0.00914	0.100	94.1%	"	--	--	"	

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Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Total Metals per EPA 200 Series Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100956

Water Preparation Method: EPA 200/3005

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100956-BLK1)								Extracted: 10/27/09 08:16						
Aluminum	EPA 200.7	ND	---	0.100	mg/l	1x	--	--	--	--	--	--	10/27/09 14:01	
LCS (9100956-BS1)								Extracted: 10/27/09 08:16						
Aluminum	EPA 200.7	5.21	---	0.100	mg/l	1x	--	5.00	104%	(85-115)	--	--	10/27/09 14:07	
Duplicate (9100956-DUP1)				QC Source: PSJ0804-02				Extracted: 10/27/09 08:16						
Aluminum	EPA 200.7	ND	---	0.100	mg/l	1x	ND	--	--	--	NR	(20)	10/27/09 14:49	
Matrix Spike (9100956-MS1)				QC Source: PSJ0804-02				Extracted: 10/27/09 08:16						
Aluminum	EPA 200.7	5.31	---	0.100	mg/l	1x	ND	5.00	106%	(75-125)	--	--	10/27/09 14:55	
Matrix Spike (9100956-MS2)				QC Source: PSJ0821-04				Extracted: 10/27/09 08:16						
Aluminum	EPA 200.7	5.38	---	0.100	mg/l	1x	0.123	5.00	105%	(75-125)	--	--	10/27/09 16:17	

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Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Total Mercury per EPA Method 7470A - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9110074

Water Preparation Method: EPA 7470A

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9110074-BLK1)							Extracted: 11/03/09 11:09							
Mercury	EPA 7470A	ND	---	0.000200	mg/l	1x	--	--	--	--	--	--	11/04/09 13:29	
LCS (9110074-BS1)							Extracted: 11/03/09 11:09							
Mercury	EPA 7470A	0.00500	---	0.000200	mg/l	1x	--	0.00500	100%	(85-115)	--	--	11/04/09 13:31	
LCS Dup (9110074-BSD1)							Extracted: 11/03/09 11:09							
Mercury	EPA 7470A	0.00470	---	0.000200	mg/l	1x	--	0.00500	94.1%	(85-115)	6.12%	(20)	11/04/09 13:34	
Duplicate (9110074-DUP1)				QC Source: PSJ0790-01				Extracted: 11/03/09 11:09						
Mercury	EPA 7470A	ND	---	0.000200	mg/l	1x	ND	--	--	--	NR	(20)	11/04/09 13:37	
Matrix Spike (9110074-MS1)				QC Source: PSJ0900-01				Extracted: 11/03/09 11:09						
Mercury	EPA 7470A	0.00468	---	0.000200	mg/l	1x	ND	0.00500	93.6%	(75-125)	--	--	11/04/09 13:39	
Matrix Spike Dup (9110074-MSD1)				QC Source: PSJ0900-01				Extracted: 11/03/09 11:09						
Mercury	EPA 7470A	0.00474	---	0.000200	mg/l	1x	ND	0.00500	94.9%	(75-125)	1.35%	(20)	11/04/09 13:42	

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Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**
Project Number: none
Project Manager: Tony Ordway

Report Created:
11/05/09 16:25

Organochlorine Pesticides and PCBs per EPA Methods 8081A/8082 - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100907

Water Preparation Method: EPA 3510/600 Series

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100907-BLK1)										Extracted: 10/27/09 12:30				
Aldrin	8081A/8082	ND	---	0.100	ug/l	1x	--	--	--	--	--	--	10/31/09 12:02	
alpha-BHC	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
beta-BHC	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
delta-BHC	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
gamma-BHC (Lindane)	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
alpha-Chlordane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chlordane (tech)	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
gamma-Chlordane	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
4,4'-DDD	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
4,4'-DDE	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
4,4'-DDT	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Dieldrin	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Endosulfan I	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Endosulfan II	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Endosulfan sulfate	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Endrin	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Endrin aldehyde	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Endrin ketone	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Heptachlor	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Heptachlor epoxide	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Methoxychlor	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Toxaphene	"	ND	---	2.50	"	"	--	--	--	--	--	--	"	
Aroclor 1016	"	ND	---	0.500	"	"	--	--	--	--	--	--	11/04/09 08:45	
Aroclor 1221	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Aroclor 1232	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Aroclor 1242	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Aroclor 1248	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Aroclor 1254	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Aroclor 1260	"	ND	---	0.500	"	"	--	--	--	--	--	--	"	
Surrogate(s):	2,4,5,6-Tetrachloro-m-xylene	Recovery:	72.3%	Limits:	16-137%								10/31/09 12:02	
	Decachlorobiphenyl		62.9%		12-130%								11/04/09 08:45	

TestAmerica Portland

Brian L. Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Organochlorine Pesticides and PCBs per EPA Methods 8081A/8082 - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100907

Water Preparation Method: EPA 3510/600 Series

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

LCS (9100907-BS1)

Extracted: 10/27/09 12:30

Aldrin	8081A/8082	0.416	---	0.100	ug/l	1x	--	0.500	83.3%	(43-115)	--	--	10/31/09 12:28	
gamma-BHC (Lindane)	"	0.443	---	0.100	"	"	--	"	88.6%	(61-120)	--	--	"	
4,4'-DDT	"	0.477	---	0.100	"	"	--	"	95.3%	(58-128)	--	--	"	
Dieldrin	"	0.440	---	0.100	"	"	--	"	88.1%	(60-128)	--	--	"	
Endrin	"	0.443	---	0.100	"	"	--	"	88.6%	(68-136)	--	--	"	
Heptachlor	"	0.442	---	0.100	"	"	--	"	88.4%	(49-116)	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene Recovery: 64.0% Limits: 16-137% 10/31/09 12:28														

LCS (9100907-BS2)

Extracted: 10/27/09 12:30

Aroclor 1016	8081A/8082	3.90	---	0.500	ug/l	1x	--	5.00	78.1%	(50-114)	--	--	11/04/09 09:07	
Aroclor 1260	"	3.55	---	0.500	"	"	--	"	70.9%	(8-127)	--	--	"	
Surrogate(s): Decachlorobiphenyl Recovery: 63.6% Limits: 12-130% 11/04/09 09:07														

Matrix Spike (9100907-MS1)

QC Source: PSJ0790-01

Extracted: 10/27/09 12:30

Aldrin	8081A/8082	0.399	---	0.0943	ug/l	1x	ND	0.472	84.5%	(43-150)	--	--	10/31/09 12:54	
gamma-BHC (Lindane)	"	0.401	---	0.0943	"	"	ND	"	85.0%	(50-150)	--	--	"	
4,4'-DDT	"	0.454	---	0.0943	"	"	ND	"	96.2%	"	--	--	"	
Dieldrin	"	0.399	---	0.0943	"	"	ND	"	84.5%	"	--	--	"	
Endrin	"	0.420	---	0.0943	"	"	ND	"	89.1%	"	--	--	"	
Heptachlor	"	0.407	---	0.0943	"	"	ND	"	86.2%	(49-150)	--	--	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene Recovery: 69.2% Limits: 16-137% 10/31/09 12:54														

Matrix Spike Dup (9100907-MSD1)

QC Source: PSJ0790-01

Extracted: 10/27/09 12:30

Aldrin	8081A/8082	0.410	---	0.0943	ug/l	1x	ND	0.472	86.9%	(43-150)	2.84% (35)		10/31/09 13:20	
gamma-BHC (Lindane)	"	0.409	---	0.0943	"	"	ND	"	86.6%	(50-150)	1.91%	"	"	
4,4'-DDT	"	0.452	---	0.0943	"	"	ND	"	95.8%	"	0.396%	"	"	
Dieldrin	"	0.406	---	0.0943	"	"	ND	"	86.0%	"	1.71%	"	"	
Endrin	"	0.425	---	0.0943	"	"	ND	"	90.1%	"	1.11%	"	"	
Heptachlor	"	0.417	---	0.0943	"	"	ND	"	88.4%	(49-150)	2.53%	"	"	
Surrogate(s): 2,4,5,6-Tetrachloro-m-xylene Recovery: 66.3% Limits: 16-137% 10/31/09 13:20														

TestAmerica Portland

Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**
Project Number: none
Project Manager: Tony Ordway

Report Created:
11/05/09 16:25

Chlorinated Herbicides per EPA Method 8151A Modified - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100857

Water Preparation Method: Micro Liq/Liq Shake

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100857-BLK1)										Extracted: 10/23/09 08:53				
2,4-D	8151mod	ND	---	1.00	ug/l	1x	--	--	--	--	--	--	10/26/09 23:42	
2,4-DB	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2,4,5-T	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2,4,5-TP (Silvex)	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Dalapon	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	C
Dicamba	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Dichlorprop	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Dinoseb	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	C
MCPA	"	ND	---	300	"	"	--	--	--	--	--	--	"	
MCPP	"	ND	---	300	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2,4-Dichlorophenylacetic acid										Recovery: 89.2%	Limits: 40-160%		10/26/09 23:42	

Blank (9100857-BLK2)

Extracted: 10/23/09 08:53

2,4-D	8151mod	ND	---	1.00	ug/l	1x	--	--	--	--	--	--	10/27/09 00:22	
2,4-DB	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2,4,5-T	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
2,4,5-TP (Silvex)	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Dalapon	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	C
Dicamba	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Dichlorprop	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Dinoseb	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	C
MCPA	"	ND	---	300	"	"	--	--	--	--	--	--	"	
MCPP	"	ND	---	300	"	"	--	--	--	--	--	--	"	
Surrogate(s): 2,4-Dichlorophenylacetic acid										Recovery: 154%	Limits: 40-160%		10/27/09 00:22	

LCS (9100857-BS1)

Extracted: 10/23/09 08:53

2,4-D	8151mod	19.0	---	1.00	ug/l	1x	--	20.0	95.0%	(60-140)	--	--	10/27/09 01:41	
2,4-DB	"	22.5	---	1.00	"	"	--	"	113%	(55-130)	--	--	"	
2,4,5-T	"	20.9	---	1.00	"	"	--	"	104%	(50-110)	--	--	"	
2,4,5-TP (Silvex)	"	22.7	---	1.00	"	"	--	"	114%	(60-115)	--	--	"	
Dalapon	"	24.1	---	5.00	"	"	--	"	121%	(60-110)	--	--	"	L, C8
Dicamba	"	21.8	---	1.00	"	"	--	"	109%	"	--	--	"	
Dichlorprop	"	22.4	---	1.00	"	"	--	"	112%	(70-120)	--	--	"	
Dinoseb	"	21.8	---	1.00	"	"	--	"	109%	(40-95)	--	--	"	L, C8
MCPA	"	2180	---	300	"	"	--	2000	109%	(60-140)	--	--	"	
MCPP	"	2700	---	300	"	"	--	"	135%	"	--	--	"	
Surrogate(s): 2,4-Dichlorophenylacetic acid										Recovery: 129%	Limits: 40-160%		10/27/09 01:41	

TestAmerica Portland

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Brian L Cone

Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Chlorinated Herbicides per EPA Method 8151A Modified - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100857

Water Preparation Method: Micro Liq/Liq Shake

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
LCS (9100857-BS2)										Extracted: 10/23/09 08:53				
2,4-D	8151mod	22.7	---	1.00	ug/l	1x	--	20.0	113%	(60-140)	--	--	10/27/09 02:21	
2,4-DB	"	25.3	---	1.00	"	"	--	"	126%	(55-130)	--	--	"	
2,4,5-T	"	24.6	---	1.00	"	"	--	"	123%	(50-110)	--	--	"	L
2,4,5-TP (Silvex)	"	27.1	---	1.00	"	"	--	"	136%	(60-115)	--	--	"	L
Dalapon	"	22.9	---	5.00	"	"	--	"	114%	(60-110)	--	--	"	L, C8
Dicamba	"	22.6	---	1.00	"	"	--	"	113%	"	--	--	"	L
Dichlorprop	"	24.3	---	1.00	"	"	--	"	121%	(70-120)	--	--	"	L
Dinoseb	"	24.4	---	1.00	"	"	--	"	122%	(40-95)	--	--	"	L, C8
MCPA	"	2220	---	300	"	"	--	2000	111%	(60-140)	--	--	"	
MCPP	"	2260	---	300	"	"	--	"	113%	"	--	--	"	
Surrogate(s): 2,4-Dichlorophenylacetic acid										Recovery: 115%		Limits: 40-160%		10/27/09 02:21

Matrix Spike (9100857-MS1)

QC Source: PSJ0790-01

Extracted: 10/23/09 08:53

2,4-D	8151mod	26.4	---	1.00	ug/l	1x	ND	20.0	132%	(60-140)	--	--	10/27/09 14:56	
2,4-DB	"	27.9	---	1.00	"	"	ND	"	139%	(45-130)	--	--	"	A-01
2,4,5-T	"	23.8	---	1.00	"	"	ND	"	119%	(40-110)	--	--	"	A-01
2,4,5-TP (Silvex)	"	29.4	---	1.00	"	"	ND	"	147%	(50-115)	--	--	"	A-01
Dalapon	"	23.8	---	5.00	"	"	ND	"	119%	(60-110)	--	--	"	A-01, C, C8
Dicamba	"	25.7	---	1.00	"	"	ND	"	129%	"	--	--	"	A-01
Dichlorprop	"	28.4	---	1.00	"	"	ND	"	142%	(70-120)	--	--	"	A-01
Dinoseb	"	24.8	---	1.00	"	"	ND	"	124%	(40-95)	--	--	"	A-01, C8
MCPA	"	2520	---	300	"	"	ND	2000	126%	(60-145)	--	--	"	
MCPP	"	2620	---	300	"	"	ND	"	131%	(40-160)	--	--	"	
Surrogate(s): 2,4-Dichlorophenylacetic acid										Recovery: 146%		Limits: 40-160%		10/27/09 14:56

Matrix Spike (9100857-MS2)

QC Source: PSJ0776-01

Extracted: 10/23/09 08:53

2,4-D	8151mod	23.8	---	1.00	ug/l	1x	ND	20.0	119%	(60-140)	--	--	10/27/09 15:37	
2,4-DB	"	26.1	---	1.00	"	"	ND	"	130%	(45-130)	--	--	"	
2,4,5-T	"	22.8	---	1.00	"	"	ND	"	114%	(40-110)	--	--	"	A-01
2,4,5-TP (Silvex)	"	26.8	---	1.00	"	"	ND	"	134%	(50-115)	--	--	"	A-01
Dalapon	"	24.9	---	5.00	"	"	ND	"	124%	(60-110)	--	--	"	A-01, C, C8
Dicamba	"	24.2	---	1.00	"	"	ND	"	121%	"	--	--	"	A-01
Dichlorprop	"	25.3	---	1.00	"	"	ND	"	127%	(70-120)	--	--	"	A-01
Dinoseb	"	24.5	---	1.00	"	"	ND	"	122%	(40-95)	--	--	"	A-01, C8
MCPA	"	2250	---	300	"	"	ND	2000	112%	(60-145)	--	--	"	
MCPP	"	2100	---	300	"	"	ND	"	105%	(40-160)	--	--	"	
Surrogate(s): 2,4-Dichlorophenylacetic acid										Recovery: 131%		Limits: 40-160%		10/27/09 15:37

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Brian L Cone

Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Chlorinated Herbicides per EPA Method 8151A Modified - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100857

Water Preparation Method: Micro Liq/Liq Shake

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (9100857-MSD1)			QC Source: PSJ0790-01					Extracted: 10/23/09 08:53						
2,4-D	8151mod	23.9	---	1.00	ug/l	1x	ND	20.0	120%	(60-140)	9.98%	(30)	10/27/09 16:19	
2,4-DB	"	24.9	---	1.00	"	"	ND	"	125%	(45-130)	11.2%	"	"	
2,4,5-T	"	21.9	---	1.00	"	"	ND	"	109%	(40-110)	8.54%	"	"	
2,4,5-TP (Silvex)	"	23.3	---	1.00	"	"	ND	"	116%	(50-115)	23.3%	"	"	A-01
Dalapon	"	24.0	---	5.00	"	"	ND	"	120%	(60-110)	0.975%	"	"	A-01, C, C8
Dicamba	"	24.3	---	1.00	"	"	ND	"	122%	"	5.61%	"	"	A-01
Dichlorprop	"	25.8	---	1.00	"	"	ND	"	129%	(70-120)	9.61%	"	"	A-01
Dinoseb	"	21.7	---	1.00	"	"	ND	"	108%	(40-95)	13.2%	"	"	A-01, C8
MCPA	"	2280	---	300	"	"	ND	2000	114%	(60-145)	9.82%	"	"	
MCPP	"	2150	---	300	"	"	ND	"	107%	(40-160)	19.6%	"	"	

Surrogate(s): 2,4-Dichlorophenylacetic acid

Recovery: 130%

Limits: 40-160%

10/27/09 16:19

TestAmerica Portland

Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100866

Water Preparation Method: 3520B Liq-Liq

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100866-BLK1)										Extracted: 10/23/09 14:15				
Acenaphthene	EPA 8270C	ND	---	5.00	ug/l	1x	--	--	--	--	--	--	10/28/09 15:41	
Acenaphthylene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Benzoic Acid	"	ND	---	50.0	"	"	--	--	--	--	--	--	"	
Benzyl alcohol	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
4-Bromophenyl phenyl ether	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Butyl benzyl phthalate	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Chloro-3-methylphenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Chloroaniline	"	ND	---	20.0	"	"	--	--	--	--	--	--	"	
Bis(2-chloroethoxy)methane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Bis(2-chloroethyl)ether	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bis(2-chloroisopropyl)ether	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
2-Chloronaphthalene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Chlorophenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Chlorophenyl phenyl ether	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Di-n-butyl phthalate	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Di-n-octyl phthalate	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Dibenzofuran	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,3-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,4-Dichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
3,3'-Dichlorobenzidine	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,4-Dichlorophenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Diethyl phthalate	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,4-Dimethylphenol	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Dimethyl phthalate	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4,6-Dinitro-2-methylphenol	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
2,4-Dinitrophenol	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
2,4-Dinitrotoluene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,6-Dinitrotoluene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Bis(2-ethylhexyl)phthalate	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	

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Brian L Cone

Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100866

Water Preparation Method: 3520B Liq-Liq

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100866-BLK1)										Extracted: 10/23/09 14:15				
Fluorene	EPA 8270C	ND	---	5.00	ug/l	1x	--	--	--	--	--	--	10/28/09 15:41	
Hexachlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Hexachlorobutadiene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Hexachlorocyclopentadiene	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Hexachloroethane	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Isophorone	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Methylnaphthalene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Methylphenol	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
3-,4-Methylphenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Nitroaniline	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
3-Nitroaniline	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
4-Nitroaniline	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Nitrobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2-Nitrophenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
4-Nitrophenol	"	ND	---	25.0	"	"	--	--	--	--	--	--	"	
N-Nitrosodi-n-propylamine	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
N-Nitrosodiphenylamine	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Pentachlorophenol	"	ND	---	10.0	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Phenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
1,2,4-Trichlorobenzene	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,4,5-Trichlorophenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
2,4,6-Trichlorophenol	"	ND	---	5.00	"	"	--	--	--	--	--	--	"	
Surrogate(s):	2-Fluorobiphenyl	Recovery:	88.9%	Limits:	20-120%								10/28/09 15:41	
	2-Fluorophenol		103%		10-120%								"	
	Nitrobenzene-d5		117%		20-130%								"	
	Phenol-d6		114%		10-125%								"	
	p-Terphenyl-d14		111%		35-130%								"	
	2,4,6-Tribromophenol		123%		20-130%								"	

TestAmerica Portland

Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**
Project Number: none
Project Manager: Tony Ordway

Report Created:
11/05/09 16:25

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100866

Water Preparation Method: 3520B Liq-Liq

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

LCS (9100866-BS1)

Extracted: 10/23/09 14:15

Acenaphthene	EPA 8270C	50.9	---	5.00	ug/l	1x	--	50.0	102%	(55-120)	--	--	10/28/09 13:26	
4-Chloro-3-methylphenol	"	64.8	---	5.00	"	"	--	"	130%	(35-135)	--	--	"	
2-Chlorophenol	"	53.3	---	5.00	"	"	--	"	107%	(30-130)	--	--	"	
1,4-Dichlorobenzene	"	32.0	---	5.00	"	"	--	"	63.9%	(10-125)	--	--	"	
2,4-Dinitrotoluene	"	55.0	---	5.00	"	"	--	"	110%	(50-130)	--	--	"	
4-Nitrophenol	"	67.6	---	25.0	"	"	--	"	135%	(10-150)	--	--	"	
N-Nitrosodi-n-propylamine	"	59.5	---	10.0	"	"	--	"	119%	(40-130)	--	--	"	
Pentachlorophenol	"	60.2	---	10.0	"	"	--	"	120%	(20-150)	--	--	"	
Phenol	"	59.9	---	5.00	"	"	--	"	120%	(10-145)	--	--	"	
Pyrene	"	51.9	---	5.00	"	"	--	"	104%	(55-125)	--	--	"	
1,2,4-Trichlorobenzene	"	43.0	---	5.00	"	"	--	"	86.1%	(30-120)	--	--	"	

Surrogate(s):	2-Fluorobiphenyl	Recovery:	85.7%	Limits:	20-120%	10/28/09 13:26
	2-Fluorophenol		100%		10-120%	"
	Nitrobenzene-d5		114%		20-130%	"
	Phenol-d6		108%		10-125%	"
	p-Terphenyl-d14		111%		35-130%	"
	2,4,6-Tribromophenol		129%		20-130%	"

Matrix Spike (9100866-MS1)

QC Source: PSJ0721-01

Extracted: 10/23/09 14:15

Acenaphthene	EPA 8270C	49.8	---	9.90	ug/l	2x	ND	49.5	101%	(20-150)	--	--	10/28/09 14:11	
4-Chloro-3-methylphenol	"	62.2	---	9.90	"	"	ND	"	126%	(10-150)	--	--	"	
2-Chlorophenol	"	48.8	---	9.90	"	"	ND	"	98.5%	"	--	--	"	
1,4-Dichlorobenzene	"	38.5	---	9.90	"	"	ND	"	77.8%	"	--	--	"	
2,4-Dinitrotoluene	"	54.4	---	9.90	"	"	ND	"	110%	"	--	--	"	
4-Nitrophenol	"	66.1	---	49.5	"	"	ND	"	134%	"	--	--	"	
N-Nitrosodi-n-propylamine	"	54.6	---	19.8	"	"	ND	"	110%	"	--	--	"	
Pentachlorophenol	"	58.2	---	19.8	"	"	ND	"	117%	"	--	--	"	
Phenol	"	54.6	---	9.90	"	"	ND	"	110%	"	--	--	"	
Pyrene	"	51.2	---	9.90	"	"	ND	"	103%	(20-135)	--	--	"	
1,2,4-Trichlorobenzene	"	45.3	---	9.90	"	"	ND	"	91.5%	(10-150)	--	--	"	

Surrogate(s):	2-Fluorobiphenyl	Recovery:	86.5%	Limits:	20-120%	10/28/09 14:11
	2-Fluorophenol		92.2%		10-120%	"
	Nitrobenzene-d5		109%		20-130%	"
	Phenol-d6		106%		10-125%	"
	p-Terphenyl-d14		108%		35-130%	"
	2,4,6-Tribromophenol		126%		20-130%	"

TestAmerica Portland

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Brian L Cone

Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Semivolatile Organic Compounds per EPA Method 8270C - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100866

Water Preparation Method: 3520B Liq-Liq

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (9100866-MSD1)			QC Source: PSJ0721-01					Extracted: 10/23/09 14:15						
Acenaphthene	EPA 8270C	50.1	---	9.90	ug/l	2x	ND	49.5	101%	(20-150)	0.753% (50)	10/28/09 14:56		
4-Chloro-3-methylphenol	"	62.9	---	9.90	"	"	ND	"	127%	(10-150)	1.05%	"	"	
2-Chlorophenol	"	47.5	---	9.90	"	"	ND	"	96.0%	"	2.63%	"	"	
1,4-Dichlorobenzene	"	36.9	---	9.90	"	"	ND	"	74.5%	"	4.31%	"	"	
2,4-Dinitrotoluene	"	54.9	---	9.90	"	"	ND	"	111%	"	0.869%	"	"	
4-Nitrophenol	"	60.4	---	49.5	"	"	ND	"	122%	"	9.01%	"	"	
N-Nitrosodi-n-propylamine	"	54.0	---	19.8	"	"	ND	"	109%	"	1.06%	"	"	
Pentachlorophenol	"	57.8	---	19.8	"	"	ND	"	117%	"	0.683%	"	"	
Phenol	"	51.7	---	9.90	"	"	ND	"	105%	"	5.40%	"	"	
Pyrene	"	53.3	---	9.90	"	"	ND	"	108%	(20-135)	4.06%	"	"	
1,2,4-Trichlorobenzene	"	44.1	---	9.90	"	"	ND	"	89.0%	(10-150)	2.79%	"	"	
<hr/>														
Surrogate(s):	2-Fluorobiphenyl	Recovery:	88.2%	Limits:	20-120%								10/28/09 14:56	
	2-Fluorophenol		93.0%		10-120%								"	
	Nitrobenzene-d5		108%		20-130%								"	
	Phenol-d6		100%		10-125%								"	
	p-Terphenyl-d14		113%		35-130%								"	
	2,4,6-Tribromophenol		127%		20-130%								"	

TestAmerica Portland

Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100997

Water Preparation Method: 3520B Liq-Liq

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

Blank (9100997-BLK1)

Extracted: 10/28/09 10:30

Acenaphthene	EPA 8270m	ND	---	0.100	ug/l	1x	--	--	--	--	--	--	10/30/09 15:08	
Acenaphthylene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) anthracene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (a) pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (b) fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (ghi) perylene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Benzo (k) fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Chrysene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Dibenzo (a,h) anthracene	"	ND	---	0.200	"	"	--	--	--	--	--	--	"	
Fluoranthene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Fluorene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Indeno (1,2,3-cd) pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Naphthalene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Phenanthrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	
Pyrene	"	ND	---	0.100	"	"	--	--	--	--	--	--	"	

Surrogate(s): Fluorene-d10	Recovery:	77.5%	Limits:	25-125%	10/30/09 15:08
Pyrene-d10	84.7%		23-150%		"
Benzo (a) pyrene-d12	73.8%		10-125%		"

LCS (9100997-BS1)

Extracted: 10/28/09 10:30

Acenaphthene	EPA 8270m	2.47	---	0.100	ug/l	1x	--	2.50	98.6%	(26-135)	--	--	10/30/09 15:37	
Benzo (a) pyrene	"	2.41	---	0.100	"	"	--	"	96.5%	(38-137)	--	--	"	
Pyrene	"	2.52	---	0.100	"	"	--	"	101%	(33-133)	--	--	"	

Surrogate(s): Fluorene-d10	Recovery:	89.0%	Limits:	25-125%	10/30/09 15:37
Pyrene-d10	90.4%		23-150%		"
Benzo (a) pyrene-d12	87.4%		10-125%		"

Matrix Spike (9100997-MS1)

QC Source: PSJ0790-02

Extracted: 10/28/09 10:30

Acenaphthene	EPA 8270m	1.99	---	0.190	ug/l	2x	ND	2.38	83.5%	(26-135)	--	--	10/30/09 16:06	
Benzo (a) pyrene	"	1.09	---	0.190	"	"	ND	"	45.9%	(38-137)	--	--	"	
Pyrene	"	2.02	---	0.190	"	"	0.118	"	80.0%	(33-133)	--	--	"	

Surrogate(s): Fluorene-d10	Recovery:	81.0%	Limits:	25-125%	10/30/09 16:06
Pyrene-d10	85.2%		23-150%		"
Benzo (a) pyrene-d12	76.3%		10-125%		"

TestAmerica Portland

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Brian L Cone

Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Polynuclear Aromatic Compounds per EPA 8270M-SIM - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100997

Water Preparation Method: 3520B Liq-Liq

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Matrix Spike Dup (9100997-MSD1)			QC Source: PSJ0790-02					Extracted: 10/28/09 10:30						
Acenaphthene	EPA 8270m	1.88	---	0.190	ug/l	2x	ND	2.38	79.0%	(26-135)	5.57%	(60)	10/30/09 16:35	
Benzo (a) pyrene	"	0.732	---	0.190	"	"	ND	"	30.8%	(38-137)	39.5%	"	"	M8
Pyrene	"	1.83	---	0.190	"	"	0.118	"	71.9%	(33-133)	9.99%	"	"	
<i>Surrogate(s): Fluorene-d10</i>														
		<i>Recovery:</i>	80.2%	<i>Limits:</i>		25-125%								
		<i>Pyrene-d10</i>	85.7%			23-150%								
		<i>Benzo (a) pyrene-d12</i>	77.8%			10-125%								

TestAmerica Portland

Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**

Project Number: none

Project Manager: Tony Ordway

Report Created:

11/05/09 16:25

Phthalates per EPA 8270-SIM - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100997

Water Preparation Method: 3520B Liq-Liq

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
---------	--------	--------	------	-----	-------	-----	---------------	-----------	-------	----------	-------	----------	----------	-------

Blank (9100997-BLK1)

Extracted: 10/28/09 10:30

Dimethyl phthalate	EPA 8270m	ND	---	1.00	ug/l	1x	--	--	--	--	--	--	10/30/09 15:25	
Diethyl phthalate	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Di-n-butyl phthalate	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Butyl benzyl phthalate	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Bis(2-ethylhexyl)phthalate	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	
Di-n-octyl phthalate	"	ND	---	1.00	"	"	--	--	--	--	--	--	"	

Surrogate(s): 2-Fluorobiphenyl Recovery: 63.8% Limits: 10-150% 10/30/09 15:25
p-Terphenyl-d14 71.1% 10-150% "

LCS (9100997-BS1)

Extracted: 10/28/09 10:30

Dimethyl phthalate	EPA 8270m	3.49	---	1.00	ug/l	1x	--	4.00	87.1%	(20-150)	--	--	11/03/09 14:55	
Diethyl phthalate	"	3.72	---	1.00	"	"	--	"	93.1%	"	--	--	"	
Di-n-butyl phthalate	"	4.15	---	1.00	"	"	--	"	104%	"	--	--	"	
Butyl benzyl phthalate	"	4.60	---	1.00	"	"	--	"	115%	"	--	--	"	
Bis(2-ethylhexyl)phthalate	"	4.76	---	1.00	"	"	--	"	119%	"	--	--	"	
Di-n-octyl phthalate	"	4.64	---	1.00	"	"	--	"	116%	"	--	--	"	

Surrogate(s): 2-Fluorobiphenyl Recovery: 81.5% Limits: 10-150% 11/03/09 14:55
p-Terphenyl-d14 78.4% 10-150% "

Matrix Spike (9100997-MS1)

QC Source: PSJ0790-02

Extracted: 10/28/09 10:30

Dimethyl phthalate	EPA 8270m	3.19	---	1.90	ug/l	2x	ND	3.81	83.6%	(10-150)	--	--	11/03/09 15:30	
Diethyl phthalate	"	3.41	---	1.90	"	"	ND	"	89.5%	"	--	--	"	
Di-n-butyl phthalate	"	3.59	---	1.90	"	"	ND	"	94.4%	"	--	--	"	
Butyl benzyl phthalate	"	3.79	---	1.90	"	"	ND	"	99.5%	"	--	--	"	
Bis(2-ethylhexyl)phthalate	"	4.28	---	1.90	"	"	0.867	"	89.7%	"	--	--	"	
Di-n-octyl phthalate	"	3.72	---	1.90	"	"	ND	"	97.5%	"	--	--	"	

Surrogate(s): 2-Fluorobiphenyl Recovery: 72.5% Limits: 10-150% 11/03/09 15:30
p-Terphenyl-d14 75.4% 10-150% "

Matrix Spike Dup (9100997-MSD1)

QC Source: PSJ0790-02

Extracted: 10/28/09 10:30

Dimethyl phthalate	EPA 8270m	3.05	---	1.90	ug/l	2x	ND	3.81	80.0%	(10-150)	4.44% (50)		11/03/09 16:06	
Diethyl phthalate	"	3.23	---	1.90	"	"	ND	"	84.9%	"	5.29%	"	"	
Di-n-butyl phthalate	"	3.43	---	1.90	"	"	ND	"	90.0%	"	4.68%	"	"	
Butyl benzyl phthalate	"	3.68	---	1.90	"	"	ND	"	96.7%	"	2.85%	"	"	
Bis(2-ethylhexyl)phthalate	"	4.08	---	1.90	"	"	0.867	"	84.3%	"	4.98%	"	"	
Di-n-octyl phthalate	"	3.52	---	1.90	"	"	ND	"	92.4%	"	5.44%	"	"	

Surrogate(s): 2-Fluorobiphenyl Recovery: 71.1% Limits: 10-150% 11/03/09 16:06
p-Terphenyl-d14 71.6% 10-150% "

TestAmerica Portland

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Brian L Cone

Brian Cone, Industrial Services Manager

CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**
Project Number: none
Project Manager: Tony Ordway

Report Created:
11/05/09 16:25

Conventional Chemistry Parameters per Standard Methods - Laboratory Quality Control Results

TestAmerica Portland

QC Batch: 9100953

Water Preparation Method: General Preparation

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100953-BLK1)								Extracted: 10/27/09 08:12						
Total Organic Carbon	SM 5310C	ND	---	1.00	mg/l	1x	--	--	--	--	--	--	10/27/09 17:37	
LCS (9100953-BS1)								Extracted: 10/27/09 08:12						
Total Organic Carbon	SM 5310C	20.1	---	1.00	mg/l	1x	--	20.0	100%	(85-115)	--	--	10/27/09 17:37	
Duplicate (9100953-DUP1)				QC Source: PSJ0613-01				Extracted: 10/27/09 08:12						
Total Organic Carbon	SM 5310C	ND	---	1.00	mg/l	1x	ND	--	--	--	NR	(20)	10/27/09 17:37	
Matrix Spike (9100953-MS1)				QC Source: PSJ0613-01				Extracted: 10/27/09 08:12						
Total Organic Carbon	SM 5310C	25.7	---	1.03	mg/l	1x	ND	25.6	100%	(75-125)	--	--	10/27/09 17:37	

QC Batch: 9100980

Water Preparation Method: Wet Chem

Analyte	Method	Result	MDL*	MRL	Units	Dil	Source Result	Spike Amt	% REC	(Limits)	% RPD	(Limits)	Analyzed	Notes
Blank (9100980-BLK1)								Extracted: 10/27/09 14:08						
Total Suspended Solids	SM 2540D	ND	---	10.0	mg/l	1x	--	--	--	--	--	--	10/27/09 17:54	
LCS (9100980-BS1)								Extracted: 10/27/09 14:08						
Total Suspended Solids	SM 2540D	50.0	---	10.0	mg/l	1x	--	60.0	83.3%	(80-120)	--	--	10/27/09 17:54	
Duplicate (9100980-DUP1)				QC Source: PSJ0804-02				Extracted: 10/27/09 14:08						
Total Suspended Solids	SM 2540D	ND	---	10.0	mg/l	1x	ND	--	--	--	NR	(20)	10/27/09 17:54	

TestAmerica Portland

Brian L Cone

Brian Cone, Industrial Services Manager

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CertainTeed Roofing Products Group

6350 NW Front Ave
Portland, OR 97210

Project Name: **Stormwater Assessment**
Project Number: none
Project Manager: Tony Ordway

Report Created:
11/05/09 16:25

Notes and Definitions

Report Specific Notes:

- A-01 - The MS/MSD were above acceptance limits.
- C - Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
- C8 - Calibration Verification recovery was above the method control limit for this analyte. A high bias may be indicated.
- L - Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
- M8 - The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
- P4 - Sample received in inappropriate sample container.
- Q10 - Hydrocarbon pattern most closely resembles a blend of oil overlap as well as possible biogenic interference.
- Q12 - Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel or possibly biogenic interference.

Laboratory Reporting Conventions:

- DET - Analyte DETECTED at or above the Reporting Limit. Qualitative Analyses only.
- ND - Analyte NOT DETECTED at or above the reporting limit (MDL or MRL, as appropriate).
- NR/NA - Not Reported / Not Available
- dry - Sample results reported on a Dry Weight Basis. Results and Reporting Limits have been corrected for Percent Dry Weight.
- wet - Sample results and reporting limits reported on a Wet Weight Basis (as received). Results with neither 'wet' nor 'dry' are reported on a Wet Weight Basis.
- RPD - RELATIVE PERCENT DIFFERENCE (RPDs calculated using Results, not Percent Recoveries).
- MRL - METHOD REPORTING LIMIT. Reporting Level at, or above, the lowest level standard of the Calibration Table.
- MDL* - METHOD DETECTION LIMIT. Reporting Level at, or above, the statistically derived limit based on 40CFR, Part 136, Appendix B. *MDLs are listed on the report only if the data has been evaluated below the MRL. Results between the MDL and MRL are reported as Estimated Results.
- Dil - Dilutions are calculated based on deviations from the standard dilution performed for an analysis, and may not represent the dilution found on the analytical raw data.
- Reporting Limits - Reporting limits (MDLs and MRLs) are adjusted based on variations in sample preparation amounts, analytical dilutions and percent solids, where applicable.
- Electronic Signature - Electronic Signature added in accordance with TestAmerica's *Electronic Reporting and Electronic Signatures Policy*. Application of electronic signature indicates that the report has been reviewed and approved for release by the laboratory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

TestAmerica Portland



Brian Cone, Industrial Services Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report shall not be reproduced except in full, without the written approval of the laboratory.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody Record

[illegible]

TestAmerica Portland
Sample Receiving Checklist

Work Order #: PSJO790 Date/Time Received: 10/22/09 1145
Client Name and Project: Certain Teed - Storm water monitoring

Time Zone:

☐ EDT/EST ☐ CDT/CST ☐ MDT/MST ☒ PDT/PST ☐ AK ☐ OTHER

Unpacking Checks:

Cooler #(s): 1 1 _____

Temperatures: 2.3 3.1 _____

Digi #1 Digi #2 IR Gun

☐ ☐ ☒ (☐ Plastic ☒ Glass)

Temperature out of Range:

____ Not enough or No Ice
____ Ice Melted
____ W/in 4 Hrs of collection
____ Other: _____

N/A Yes No

Initials: PS

- | | | | |
|-------------------------------------|-------------------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 1. If ESI client, were temp blanks received? If no, document on NOD. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 2. Cooler Seals intact? (N/A if hand delivered) if no, document on NOD. |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. Chain of Custody present? If no, document on NOD. |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Bottles received intact? If no, document on NOD. |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 5. Sample is not multiphasic? If no, document on NOD. |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 6. Proper Container and preservatives used? If no, document on NOD. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 7. pH of all samples checked and meet requirements? If no, document on NOD. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 8. Cyanide samples checked for sulfides and meet requirements? If no, notify PM. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 9. HF Dilution required? |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 10. Sufficient volume provided for all analysis? If no, document on NOD and consult PM before proceeding. |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 11. Did chain of custody agree with samples received? If no, document on NOD. |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 12. Is the "Sampled by" section of the COC completed? |
| <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 13. Were VOA/Oil Syringe samples without headspace? <i>A has 1 vial w/ bubble</i> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 14. Were VOA vials preserved? <input checked="" type="checkbox"/> HCl <input type="checkbox"/> Sodium Thiosulfate <input type="checkbox"/> Ascorbic Acid |
| | <input type="checkbox"/> | <input checked="" type="checkbox"/> | 15. Did samples require preservation with sodium thiosulfate? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 16. If yes to #14, was the residual chlorine test negative? If no, document on NOD. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 17. Are dissolved/field filtered metals bottles sediment-free? If no, document on NOD. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 18. Is sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM before proceeding. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 19. Are analyses with short holding times received in hold? |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 20. Was Standard Turn Around (TAT) requested? |
| | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 21. Receipt date(s) < 48 hours past the collection date(s)? If no, notify PM. |

TestAmerica Portland
Sample Receiving Checklist

Work Order #: PSJO 790

Login Checks:

Initials: KAH

N/A Yes No

- | | | | |
|-------------------------------------|-------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 22. Sufficient volume provided for all analysis? If no, document on NOD & contact PM. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 23. Sufficient volume provided for client requested MS/MSD or matrix duplicates? If no, document on NOD and contact PM. |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 24. Did the chain of custody include "received by" and "relinquished by" signatures, dates and times? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 25. Were special log in instructions read and followed? |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 26. Were tests logged checked against the COC? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 27. Were rush notices printed and delivered? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 28. Were short hold notices printed and delivered? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 29. Were subcontract COCs printed? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 30. Was HF dilution logged? |

Labeling and Storage Checks:

Initials: KAH

N/A Yes No

- | | | | |
|-------------------------------------|-------------------------------------|--------------------------|-----------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 31. Were the subcontracted samples/containers put in Sx fridge? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 32. Were sample bottles and COC double checked for dissolved/filtered metals? |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 33. Did the sample ID, Date, and Time from label match what was logged? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 34. Were Foreign sample stickers affixed to each container and containers stored in foreign fridge? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | 35. Were HF stickers affixed to each container, and containers stored in Sx fridge? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 36. Was an NOD for created for noted discrepancies and placed in folder? |

Document any problems or discrepancies and the actions taken to resolve them on a Notice of Discrepancy form (NOD).



THE LEADER IN ENVIRONMENTAL TESTING

Sampling Documentation Form

Client: Certain Teed Roofing Products Group
Site: Outfall A, CB1
Project: Stormwater Monitoring

Sampler: Lawrence Spangler
Date: 10-21-09
Time: 0835

Sample Matrix: Water

Sampling Method: Grab

Grab Sampling Equipment: Into Bottle and Dipper

Outfall A Time: 0840
Outfall B Time: 0845

Field Data:

pH: Outfall A 7.82 Time Taken: 0845
pH: Outfall B 8.25 Time Taken: 0850
pH calibration-7.00 buffer reading: 7.00
pH calibration slope: 95.7

Field Conditions:

Weather: ☐ Sunny ☐ Partly cloudy ☒ Cloudy ☐ Snowing
Rainfall: ☐ Heavy ☒ Continuous ☐ Intermittent ☐ Light ☐ None

Sample Characteristics:

Color: _____ **Odor:** _____ **TSS:** _____
Sediment: _____ **Foam:** _____

Observations and Comments:
